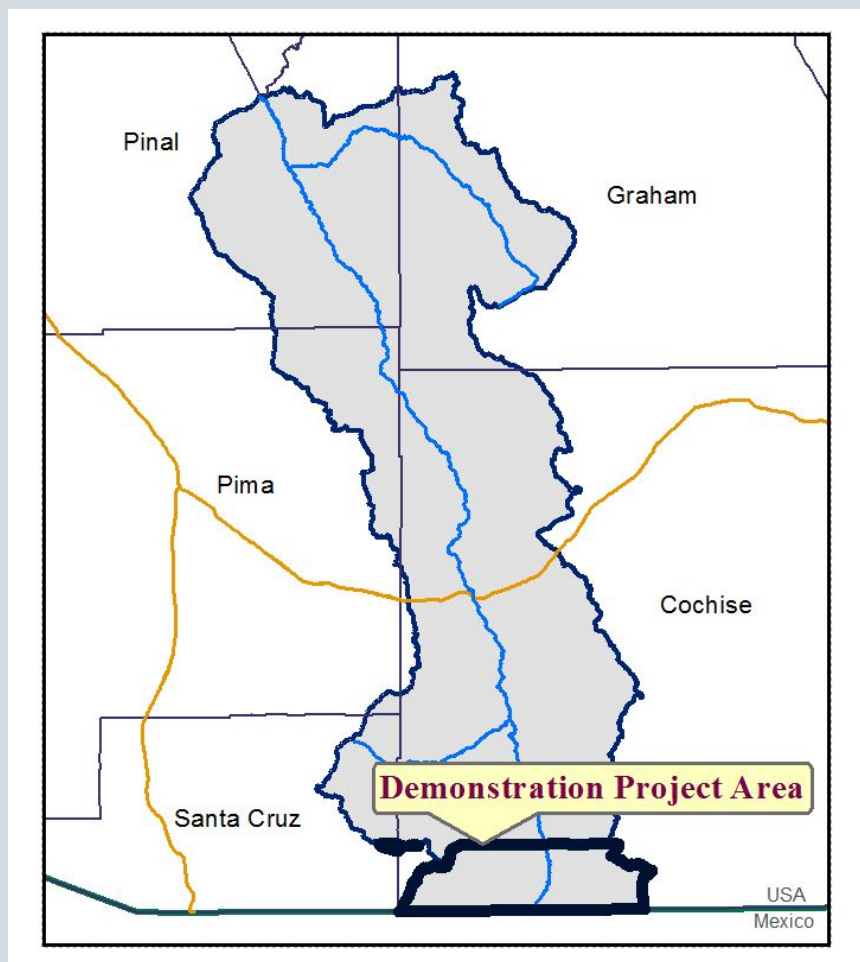


# ADWR DEMONSTRATION PROJECT REPORT: *DE MINIMIS* ASSESSMENT & CONE OF DEPRESSION TEST METHODOLOGY

## - San Pedro River Watershed -

*In re The General Adjudication of the  
Gila River System and Source*



Arizona Department of Water Resources

January 2017



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## ACRONYMS

ADWR	Arizona Department of Water Resources
AIS	Adjudication Investigation System
AF	acre-feet
AFA	acre-feet per annum (year)
DM	domestic
gpm	gallons per minute
GIS	Geographic Information System
HSR	Hydrographic Survey Report
IR	irrigation
MU	municipal
NWRA	No Water Right Awarded
POD	Point of Diversion
PpWR	Proposed Water Right Number
PWR	Potential Water Right Number
SOC	Statement of Claimant
SP	stockpond
SW	stockwatering
UTM	Universal Transverse Mercator
USGS	United States Geological Survey
WFR	Watershed File Report
WL	wildlife



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# CHAPTERS

## 1.0 INTRODUCTION

*De minimis* water uses and the cone of depression test have been the subjects of much discussion and debate within the Gila River General Stream Adjudication (Gila River Adjudication or adjudication) for more than 20 years. The Arizona Department of Water Resources (ADWR) concluded during the spring of 2016 that it would be informative to conduct a demonstration project that would deploy proposals for the resolution of both of these issues in a small portion of the San Pedro River Watershed and thereby show how these proposals could impact the conduct of the Gila River Adjudication.

**Figure 1-1** shows the Demonstration Project Area, which consists of the southernmost two townships in the San Pedro River Watershed, exclusive of Fort Huachuca. **Figure 1-1** displays townships, major roads, settlements, the San Pedro River, ADWR's proposed subflow zone,<sup>1</sup> current land ownership, and regional and watershed file report (WFR) boundaries from the 1991 San Pedro River Watershed Hydrographic Survey Report (San Pedro I HSR).

This Demonstration Project Report presents the methodologies for assessing *de minimis* uses and deploying the cone of depression test, findings of the investigations, and recommendations for the Court and the parties to consider. The findings presented in this report are *examples only* and should under no circumstances be considered a final ADWR recommendation on any water right or water right attribute. No additional field work was conducted during the Demonstration Project, though some field work may be necessary as each individual water right is investigated in the future.

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<sup>1</sup> In 2015, the adjudication court heard testimony and received briefing from the parties concerning ADWR's proposed San Pedro River subflow zone boundary. A decision has not yet been issued.



## 2.0 DE MINIMIS USES

### 2.1 Background

#### 2.1.1 1994 De Minimis Decision

In 1993, the Arizona Supreme Court recognized that summary adjudication of *de minimis* water uses “could simplify and accelerate the adjudication.” *In re the General Adjudication of All Rights to Use Water in the Gila River System and Source*, 175 Ariz. 382, 394, 857 P.2d 1236, 1248 (1993) (“*Gila II*”). After the Supreme Court’s endorsement of a summary adjudication of *de minimis* uses, Special Master Thorson issued a memorandum decision identifying *de minimis* uses that are appropriate for summary adjudication in the San Pedro River Watershed<sup>2</sup> and outlined procedures for such summary adjudication. See Memorandum Decision, Contested Case No. W1-11-19, dated November 14, 1994 (modified on February 23, 1995) (“1994 *De Minimis* Decision”). By order dated September 26, 2002 (“2002 Order”), Judge Ballinger adopted Special Master Thorson’s approach.<sup>3</sup>

The 1994 *De Minimis* Decision was founded on a desire to minimize the unnecessary expenditure of time, effort, and money on litigation of uses that were numerous but relatively small in volume and impact. “In essence, what the court is attempting to achieve is a balance between the private and public needs for a specification of these rights and the resources appropriate for making this determination.” 1994 *De Minimis* Decision at 11. After extensive analysis of the costs of litigating each individual use, the effects, both individually and cumulatively, of the water uses in question, and the benefits of full litigation of each use, the 1994 *De Minimis* Decision concluded that certain

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<sup>2</sup> “The procedures adopted for small uses in the Little Colorado River system differ from those announced in this decision for the San Pedro River system. These summary procedures must be fashioned to the unique character of each watershed.” 1994 *De Minimis* Decision at 10.

<sup>3</sup> In the 2002 Order, the court declined to adopt Findings of Fact Nos. 42 through 44 and 53 through 58, and modified Conclusion of Law No. 31. Those Findings of Fact and Conclusion of Law No. 31 are not referenced in this report.



categories of stockponds, stockwatering, wildlife, and self-supplied domestic uses are *de minimis* uses<sup>4</sup> appropriate for summary adjudication.

The 1994 *De Minimis* Decision also set forth step-by-step procedures for the summary adjudication of *de minimis* uses in the San Pedro River Watershed. “The summary procedures... are appropriate, reasonable, and necessary for the expeditious adjudication of individual stockwatering, stockpond, and domestic uses found to be *de minimis*. When numerous *de minimis* uses are present, the application of summary adjudication procedures is a necessary case management tool for making progress in the multi-decade general stream adjudication involving thousands of parties and water rights.” *Id.* at 37-38, COL No. 29.

The procedures for summary adjudication include an abbreviated objection process for the catalog of proposed abstracts of water rights for *de minimis* uses in the San Pedro River Watershed. Objections are not only limited to “permissible” objections,<sup>5</sup> but objectors must also demonstrate both that “resolution of the objection will demonstrably protect or improve the objector’s own water right,” and that “resolution of the objection will provide relief that could otherwise not be obtained in a post-final decree enforcement proceeding.” *Id.* at 36. Additionally, the Special Master will not consider objections relating to quantity, because the 1994 *De Minimis* Decision set forth the methods for determining the quantity of each type of *de minimis* use. *Id.* The Special Master will recommend that, upon entry of the final decree, any other objections be dismissed. *Id.* at 36-37.

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<sup>4</sup> The 1994 *De Minimis* Decision concluded that all stockwatering uses are *de minimis* both individually and cumulatively. 1994 *De Minimis* Decision at 31, Conclusion of Law (“COL”) No. 8. Certain stockponds and self-serving domestic uses, however, were determined to be *de minimis* individually, though not cumulatively, although still subject to summary adjudication “because of the unlikelihood of stockponds or domestic uses being administered to provide water to senior users.” *Id.* at 30, 31-33, COL Nos. 11-12, 23-24. Wildlife uses may be included as joint uses with stockwatering and stockpond *de minimis* uses. *Id.* at 13, COL No. 5.

<sup>5</sup> “Permissible objections” are those “that do ‘not assert objections that reasonably could have been asserted during the original 180-day objection period for that watershed ... HSR.’” 1994 *De Minimis* Decision at 36 (citing Rules for Proceedings Before the Special Master § 15.04 (1991)).





As observed by Special Master Thorson, Judge Ballinger, and the Arizona Supreme Court, the primary objective of the summary adjudication procedures for *de minimis* uses in the San Pedro River Watershed is to achieve meaningful results – in the form of relatively speedy adjudication of numerous claims – at minimal expense to the litigants. To that end, the 1994 *De Minimis* Decision sets forth procedures for creating water right abstracts for each of the *de minimis* uses.

The 1994 *De Minimis* Decision identified water right characteristics required to be used to create a water right abstract for each of the *de minimis* uses defined in the decision, absent unusual circumstances. *Id.* at 39-43. The Special Master’s directives are described below:

1. Proposed Water Right Number (PpWR No.): This number will be comprised of the San Pedro I HSR Watershed File Report (WFR) number (*e.g.* 111-18-10) to which is appended the abbreviation for the beneficial use and a unique serial number (*e.g.* SP001) to create a PpWR No. (*e.g.* 111-18-10-SP001).
2. Requirement of a Statement of Claimant: The number of a statement of claimant (SOC) filed in the adjudication for a particular *de minimis* use must be matched to a proposed water right number. If an SOC is not matched to a PpWR No., the *de minimis* use will be listed in the “no water right awarded” section of the catalog of proposed water rights.
3. Basis of Water Right: A potential water right for a particular *de minimis* use must be matched with a “preadjudication filing or other legal basis” in order for a water right abstract to be created, or the use will be listed in the “no water right awarded” section of the catalog of proposed water rights.
4. Ownership: The name of the landowner listed in the WFR will be used.<sup>6</sup>

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<sup>6</sup> Note that Judge Ballinger’s 2002 Order states that it “does not address the legal ownership of water rights on state and federal lands, an issue outside of the scope of the Special Master’s *De Minimis* Report.” (2002 Order at 5). Also, the issue of ownership on public lands is before the Special Master in *In re Sands Group of Cases*, W1-11-19.



5. Beneficial (Type of) Use: The beneficial (type of) use will be based on the information contained in the WFRs and the definitions set forth in the 1994 *De Minimis* Decision for stockwatering, stockponds, wildlife, and domestic. *Id.* at 13, COL Nos. 1-6.

6. Priority Date: The apparent date of first use listed in the potential water right section of the WFR will be used. If the WFR is incomplete or ambiguous, the following sequence should be used: 1) “the earliest date set forth in a judicial decree or Water Rights Registration Act<sup>7</sup> filing; or 2) the earliest date set forth in any other preadjudication filing, adjudication filing, or other admissible credible evidence.” The priority date assigned will be based on the day, month and year, if available. If the day is not available, the priority date will be assigned using the last day of the month and year. If neither the day nor month is available, the priority date will be assigned as the last day of the year.

7. Source of Water: If the WFR indicates that surface water is being used, the abstract will describe the source of water as “surface water.” If the WFR indicates that underground water is being used, or the source is uncertain, the source of water will be described as “not yet determined.”

8. Place of Use: The place of use will be described depending on the type of use. For *stockwatering*, the information in the “use” section of the WFR will be used. For *stockponds*, the information in the “reservoir” section of the WFR will be used. For *domestic* use, the information in the “use location” section of WFR will be used. For each of these uses, the place of use will be described to the nearest ¼, ¼ section, or the ¼, ¼, ¼ section if there are two or more uses in the same ¼ ¼ section.

9. Quantity: COL Nos. 10, 14, 16, 17, 19, 20 and 25 will be used to determine quantity. The adjudicated quantity for *stockwatering* will state

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<sup>7</sup> See A.R.S. §§ 45-181 *et seq.*



“reasonable use.” *Id.* at 31, COL No. 10. The adjudicated quantity for *stockponds* will be determined as follows:

(a) “not to exceed ( $\leq$ ) 4 ac-ft with continuous fill” for all stockponds having a capacity of 4 acre feet or less (*Id.* at 32, COL No. 14);

(b) for State Land Department stockponds having a capacity greater than 4 acre feet, the amount claimed on the statement of claimant with continuous fill (*Id.* at 32-33, COL Nos. 16, 20);

(c) ADWR may use previously compiled field surveys or regression analysis as a basis for determining the volume of those stockponds having a capacity not exceeding 4 acre-feet (*Id.* at 32, COL No. 17); and

(d) ADWR may use previously compiled field surveys or regression analysis as a basis for determining the volume of those stockponds having a capacity greater than 4 acre-feet, but no greater than 15 acre-feet, which “will be adjudicated as the quantity of each of these rights” with continuous fill (*Id.* at 32, COL No. 19).

The adjudicated quantity for *domestic* will be “not to exceed one acre-foot per year” “for domestic rights supplied by the landowner or occupant from a well or surface water source providing water for a single family household and associated outdoor activities on adjoining land not exceeding ( $\leq$ ) 0.2 surface acres (‘self-supplied residential domestic right’).” *Id.* at 33, COL No. 25 at 33.

#### 2.1.2. Development of Demonstration Project

ADWR developed the Demonstration Project to explore how the 1994 *De Minimis* Decision could be implemented using the San Pedro I HSR and the associated data contained in the Adjudication Investigation System (AIS) database, in a Geographic Information System (GIS) environment. The goal of the Demonstration Project is to



produce tables of water right attribute data that are, in most cases, linked to verifiable, geo-referenced locations mapped within GIS. These tables could be used to produce water right abstracts, as directed by the Special Master.

In order to create the necessary linkage to mapped locations within GIS, ADWR scanned and then digitized all of the information shown on the maps contained within Volume 9 of the San Pedro I HSR. This information includes certain WFR boundaries, Potential Water Right (PWR) locations, Point of Diversion (POD) locations, and the extent of service areas and irrigated lands.

In addition, ADWR developed software to obtain information from certain database programs. AIS was originally created by a custom program using the COBOL computer language to create a data file. In 1995, this data file was converted into a commercially available database program and eventually migrated into an ORACLE database where it resides today. Unfortunately, many of the relationships between data records, such as the linkages between filings and PWRs, were lost during the conversion. This was especially true for “many to many” relationships. ADWR devised a software tool that allowed staff to view the imaged San Pedro I HSR report and then re-establish the appropriate linkages in ORACLE.

After making the San Pedro I HSR data for the Demonstration Project Area available digitally, ADWR extracted the necessary information for the four categories of *de minimis* uses. Each of the categories of *de minimis* uses are discussed below, presenting information from the San Pedro I HSR, the 1994 *De Minimis* Decision, ADWR’s *de minimis* investigation methods, and ADWR’s *de minimis* findings.

ADWR’s *de minimis* findings are provided in **Tables 2-1** through **2-6**, which present the water right characteristics described in the 1994 *De Minimis* Decision, together with additional information as appropriate. Each of these tables are described in more detail in the following sections for each type of *de minimis* use.



Several types of information are common to all the tables. If both an SOC and a legal basis of the claim were not included in the 1991 San Pedro I HSR, then the *de minimis* use was placed in the “No Water Right Awarded” (NWRA) category.<sup>8</sup> If the legal basis included multiple previous filings and/or other evidence, the basis for the priority date is indicated in bold or in the comments. Landowner information is presented based on the San Pedro I HSR and Cochise County Assessor records received from the assessor on September 20, 2016. For *de minimis* uses not placed in the NWRA category, priority dates are based on previous filings associated with the *de minimis* use and other credible evidence. Information is also presented concerning any lessees described in the San Pedro I HSR. ADWR did not update lessee records during the Demonstration Project evaluation. Brief explanatory comments are provided, as necessary. Further indicated in the tables are whether any of the *de minimis* uses are part of other contested cases or decrees, and whether any errors were found in the San Pedro I HSR.

## **2.2 Stockwatering *De Minimis* Uses**

### **2.2.1 San Pedro I HSR**

Stockwatering was defined in the San Pedro I HSR (p. 542) as:

Water used primarily for watering livestock. The source may be a spring, cienega, seep, natural lake, natural depression, sink, bog, or intermittent or perennial drainage. Stockwatering does not include stockponds.

An “SW” PWR was created for stockwatering uses based on the filings associated with the use. The identification of actual water uses from aerial photography or site inspection was not required (San Pedro I HSR, p. 545.)

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<sup>8</sup> By Order dated June 21, 2016 in Case No. W1-W4, the adjudication court directed ADWR to prepare a San Pedro II HSR that will address SOC's filed after the publication of the 1991 San Pedro I HSR. In the preparation of the San Pedro II HSR, additional information may become available regarding an SOC and/or the legal basis of claim that could allow the *de minimis* use to be summarily adjudicated.



PWRs were created for springs if they were associated with *both* an SOC and a previous filing<sup>9</sup> that claimed stockwatering as a water use (San Pedro I HSR, Table 8-2, p. 546). Springs were mapped and their locations were described to the nearest ¼, ¼ or ¼, ¼, ¼, depending on available information. For example, a spring identified on a United States Geological Survey (USGS) quadrangle map could be described to the nearest ¼, ¼, ¼, while an unmapped seep might only be described to the nearest ¼, ¼, based on information provided in the associated filings.

Instream SW PWRs were created if *either* an SOC *or* previous filing claiming stockwatering as a water use was filed by a landowner or lessee along the watercourse claimed (San Pedro I HSR, p. 568). Instream SW PWRs were not mapped. Their locations were described to the nearest ¼, ¼, ¼ based on the location where the claimed watercourse first entered the owned property or lease allotment boundary.

Apparent first use dates were assigned to SW PWRs based on the earliest date claimed in an associated previous filing or decree, to the nearest year (San Pedro I HSR, Table 8-3, p. 549). No apparent first use date was assigned to an instream SW PWR unless it had *both* an SOC and a previous filing. Dates were assigned only to the nearest year for all PWRs in the San Pedro I HSR. Quantities of use were not assigned to SW PWRs.

**Appendix A** contains Chapter 8 of Volume 1 of the San Pedro I HSR entitled “Investigation Criteria, Procedures, and Reporting Format”. Tables 8-2, 8-3, 8-8, and 8-9 within **Appendix A** summarize stockwatering investigation criteria.

### 2.2.2 1994 *De Minimis* Decision

The 1994 *De Minimis* Decision (p. 38) defined stockwatering as:

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<sup>9</sup> The San Pedro I HSR investigated “all previous filings or rights established under the water code (3Rs, 33s, or 4As), all claims made under the water rights, and stockpond registration acts (36s and 38s), and all decreed rights (20s), notices of appropriation (10s), old rights (“Os”), and claimed rights (“Cs”).” (San Pedro I HSR, p. 535).



... the instream watering of stock at unimproved or improved locations on a stream, creek, spring, or similar surface source..

As noted above in the discussion of the 1994 *De Minimis* Decision, a water right abstract for a *de minimis* stockwatering use will not be created unless there is both an SOC and a basis of water right consisting of a “preadjudication filing or other legal basis.” Therefore, instream SW PWRs created in the San Pedro I HSR which lack either an SOC or a previous filing will not have an abstract created and will be placed in the NWRA section of the catalog of proposed water rights.

The 1994 *De Minimis* Decision requires that priority dates be assigned to the specific day claimed if such information is available. Otherwise, the priority date should be assigned to the end of the month if only the month is claimed, or to the end of the year if only the year is claimed. The San Pedro I HSR presented apparent first use dates only by year, regardless of whether a more specific date was available.

### 2.2.3 ADWR’s *De Minimis* Investigation Methods

ADWR’s investigation of potentially *de minimis* SW PWRs found in the Demonstration Project Area consisted of:

1. Determining whether the PWR had both an SOC and previous filing associated with it. If both types of filings were present, the PWR would be eligible for the preparation of a *de minimis* water rights abstract. If both types of filings were not present, then the PWR was placed in the NWRA category.
2. Evaluating the previous filings associated with each PWR not placed in the NWRA category to determine if a day and/or month could be identified to supplement the year of the apparent first use date provided in the HSR.



#### 2.2.4 ADWR's *De Minimis* Findings

**Table 2-1** displays the results of ADWR's evaluation of potentially *de minimis* SW PWRs found within the Demonstration Project Area. The "-WL" designation found at the end of some of the Proposed Water Right numbers listed in column 1 indicates that a Wildlife (WL) water right is associated with that SW use. This is discussed in greater detail in **Section 2-3**. Column 9 lists the Quantity as "Reasonable Use" for all SW uses, in accordance with the 1994 *De Minimis* Decision.

Of the 90 SW PWRs found in the San Pedro I HSR within the Demonstration Project Area, 78 were determined to be potentially eligible for the preparation of *de minimis* water right abstracts. Two SW PWRs were placed in the NWRA category and 10 fell into other categories, as noted in the table. **Figure 2-1** displays the locations of SW PWRs found in the Demonstration Project Area.

#### 2.2.5 Issues

- Previous filings associated with some SW uses had a claimed priority date of "in the 1880's." In accordance with the 1994 *De Minimis* Decision, these filings would be assigned a Priority Date of December 31, 1889, the last day of the "1880's." However, in some cases, ADWR found another previous filing different from the one relied on in the San Pedro I HSR. For example, the San Pedro I HSR listed 1880 as the apparent first use date for SW PWR 111-22-009-SW001 based on filing 36-11157 claiming "Stockwater use since 1880's" as the date water was first used beneficially. There is another filing associated with this PWR that includes a specific date of first beneficial use. Filing 36-41159 claims "January 1, 1884" as the date water was first used beneficially, and this is the date that was included in **Table 2-1**. ADWR provided a comment in Column 12 in instances where the basis of the priority date was changed from that listed in the HSR.
- In cases where there are multiple SOC's and/or previous filings, some filings may claim stock only, while others may claim both stock and wildlife. In such cases,





the priority date for stock use may differ from the priority date for wildlife use. The priority date claimed for stock use is provided as the priority date for SW PWRs in **Table 2-1**. See **Section 2.3.1**.

## **2.3 Wildlife *De Minimis* Uses**

### **2.3.1 San Pedro I HSR**

Wildlife uses, assigned “WL” PWRs, were defined in the San Pedro I HSR (p. 542) as:

water used primarily for watering wildlife. The source may be a spring, cienega, seep, natural lake, natural depression, sink, bog, or intermittent or perennial drainage.

The criteria for creating, mapping, and describing WL PWRs are identical to those presented above for SW PWRs, except that the predominant use must be for wildlife rather than stock. In cases where both stock and wildlife were claimed, “a stockwatering (SW) PWR is created due to the larger consumptive use associated with livestock watering.” (San Pedro I HSR, p. 570). In these instances, wildlife was coded as “Incidental” in the “DWR Analysis of Filings and Decrees” portion of the WFR.

### **2.3.2 1994 *De Minimis* Decision**

The 1994 *De Minimis* Decision recognized that wildlife is a beneficial use and that, “[a]n appropriation of water may be made for the joint watering of stock and wildlife (WL) at the same pond or instream location. Two beneficial uses, SW or SP and WL, will be assigned for these joint uses.” 1994 *De Minimis* Decision at 13, COL No. 5. In addition, the Special Master believed that “wildlife watering presents a situation similar to the watering of stock and, for that reason, abstracts should be prepared for these uses in the same manner.” *Id.* at 44, n. 16.

ADWR believes that the Special Master recognized wildlife watering as occurring both jointly with stockwatering as a secondary use, and as a primary use where only wildlife



watering is claimed. The following section describes how ADWR applied the Special Master’s directives in instances where wildlife watering was claimed.

### 2.3.3 ADWR’s *De Minimis* Investigation Methods

Seven WL PWRs were identified in the Demonstration Project Area and were evaluated similarly to SW PWRs, as described above in **Section 2.2**. ADWR also reviewed the HSR data in AIS and identified instances where there were both SOC’s and previous filings associated with an SW or stockpond (SP) (see **Section 2.4** below) that claimed wildlife as a use. These were coded as “incidental” by the HSR investigators in the “DWR Analysis of Filings and Decrees” portion of the WFR. In those instances, a “-WL” suffix was attached to the proposed water right number provided in **Tables 2-1** and **2-3**, e.g. “111-22-009-SW001-WL.”

### 2.3.4 ADWR’s *De Minimis* Findings

**Table 2-2** displays the results of the evaluation of potentially *de minimis* WL PWRs found within the Demonstration Project Area. As noted above, there were seven WL PWRs found within the Demonstration Project Area and described within the 1991 San Pedro I HSR. An eighth WL PWR was added when one of the SW PWRs was re-classified as a WL PWR based on the uses claimed in its filings. Of the eight WL PWRs, two are potentially eligible for *de minimis* abstracts, one falls in the NWRA category, and five fall into other categories as noted in the table. **Figure 2-2** displays the locations of the WL PWRs found in the Demonstration Project Area.

### 2.3.5 Issues

- The priority date claimed for wildlife use for one of the WL PWRs on both its SOC and previous filing is “time immemorial.”
- Some of the WL PWRs are for uses claimed within SPRNCA.



## 2.4 Stockpond *De Minimis* Uses

### 2.4.1 San Pedro I HSR

Stockponds, designated as “SP” PWRs in the San Pedro I HSR (p. 542) are defined as:

an impoundment which stores surface water for the primary purpose of watering livestock and/or wildlife.

Stockponds can be any size and can be supplemented with groundwater, but must store some surface water. SP PWRs were created based on aerial photographic evidence. Site visits for surveying the SP capacity were initially conducted if aerial photographs indicated the surface area of the pond exceeded one-acre, though a standard of two surface acres was later utilized. Apparent first use dates, by year only, were assigned based on the earliest previous filing or historical aerial photography if no previous filing was associated with the water use. (San Pedro I HSR, Table 8-3, p. 549). An SP PWR was created even if there were no SOC's or previous filings associated with the water use. Wildlife was coded as “Incidental” in the “DWR Analysis of Filings and Decrees” portion of the WFR if wildlife was an additional claimed use in the SOC's and/or previous filings associated with the SP PWR.

SP PWRs that were not surveyed were assigned a surface area of “less than 2.0 acres” and a capacity of “less than or equal to 15.0 acre feet” in the San Pedro I HSR. Those that were surveyed had the surface area and capacity entered into the HSR. All stockponds were mapped and described to the nearest ¼, ¼, ¼. Tables 8-3, 8-7, 8-8, and 8-9 found in **Appendix A** summarize stockpond investigation criteria.

### 2.4.2 1994 *De Minimis* Decision

Special Master Thorson defined SP uses as:

those ponds or other artificial facilities, used solely for the watering of stock or wildlife, that individually have a capacity of no more than ( $\leq$ ) 15 ac-ft. that is used solely for stock or wildlife. As the following discussion indicates, the method of quantifying stockponds with individual capacities



no more than ( $\leq$ ) 4 ac-ft (*i.e.*, assigning a uniform volume) differs from the method of quantifying larger stockponds.

(1994 *De Minimis* Decision at 38.) The Special Master’s definition distinguishes *de minimis* stockponds, those having a capacity less than or equal to ( $\leq$ ) 15 acre-feet, from the HSR definition of an SP PWR, which has no size restriction. The 1994 *De Minimis* Decision established the following criteria for assigning quantities to SP PWRs:

- (1) “not to exceed ( $\leq$ ) 4 ac-ft with continuous fill” for all stockponds having a capacity of 4 acre feet or less (1994 *De Minimis* Decision at 32, COL No. 14);
- (2) for State Land Department stockponds having a capacity greater than 4 acre feet, the amount claimed on the statement of claimant with continuous fill (*Id.* at 32-33, COL Nos. 16, 20);
- (3) ADWR may use previously compiled field surveys or regression analysis as a basis for determining the volume of those stockponds having a capacity not exceeding 4 acre-feet (*Id.* at 32, COL No. 17); and
- (4) ADWR may use previously compiled field surveys or regression analysis as a basis for determining the volume of those stockponds having a capacity greater than 4 acre-feet, but no greater than 15 acre-feet, which “will be adjudicated as the quantity of each of these rights” with continuous fill (*Id.* at 32, COL No. 19).

#### 2.4.3 ADWR *De Minimis* Investigation Methods

ADWR’s investigation of *de minimis* SP PWRs found in the Demonstration Project Area was conducted as described below:

1. ADWR scanned and imported into GIS the maps from Volume 9 of the 1991 San Pedro I HSR, the aerial photography flown during late 1984 and early 1985 and used during the HSR investigations, and the mylar overlays of the 1984 and 1985 photography, which showed the results of the San Pedro I HSR field investigations. These three covers were used to identify the SP PWRs on more recent geo-rectified imagery. Each SP PWR was then mapped on the more recent



imagery and the Universal Transverse Mercator (UTM) coordinates of a point located at approximately the center of the stockpond dam was determined. The mapped locations will be important in distinguishing SP PWRs included in the 1991 San Pedro I HSR from new stockponds to be evaluated during the San Pedro II HSR investigations.

2. Stockpond capacities were determined for stockponds having SOC's filed by the Arizona State Land Department and for those stockponds which had surveyed capacities presented in the 1991 San Pedro I HSR in accordance with the Special Master's directives discussed above. Arizona State Land Department stockpond capacities were determined by adding together the volumes claimed for stockwatering and wildlife.
3. Capacities for the remaining SP PWRs were estimated using the regression analysis included in the 1994 *De Minimis* Decision, where the capacity equals the surface area multiplied by 6.03, with 2.22 then being subtracted from that product [Capacity = 6.03 (surface area) + (-2.22)]. 1994 *De Minimis* Decision at 21. Using this equation, a stockpond having a surface area of one-acre would have an estimated capacity of 3.81 acre-feet.

To apply the regression equation analysis, ADWR first used its GIS software to compare the apparent surface area of each stockpond to be analyzed, as seen on the scanned 1984 and 1985 aerial imagery, to a one-acre circle. Those stockponds which were clearly less than one-acre in surface area were assigned a capacity of "Not to exceed 4 acre-feet with continuous fill" as directed by the 1994 *De Minimis* Decision. Stockponds with surface areas equal to or greater than one-acre were digitized and their areas input into the regression equation to estimate a capacity (**Figure 2-3**).

4. Previous filings associated with the PWR were evaluated to determine if a day and/or month could be identified to supplement the year of the apparent first use



date provided in the HSR. Where aerial photographs were used to determine apparent first use dates presented in the San Pedro I HSR, ADWR examined the photos to determine the actual date they were taken and noted in the comments that an aerial photo was the source of the priority date. Priority dates were not assigned for SP PWRs that were placed in the NWRA category.

#### 2.4.4 ADWR *De Minimis* Findings

**Table 2-3** displays the results of the evaluation of potentially *de minimis* SP PWRs found within the Demonstration Project Area. The table presents the information described above in Section 2.1.2, and includes two columns to describe the place of use. The first place of use column (“Place of Use HSR”) is the location description from the 1991 San Pedro I HSR as extracted from AIS. The second place of use column (“Place of Use GIS”) is the location description based on the point established near the center of the stockpond dam during the *de minimis* evaluation. In most cases, the locations are the same, though approximately 30% of the time there are slight differences due to the center of the dam falling in a different  $\frac{1}{4}$ ,  $\frac{1}{4}$ ,  $\frac{1}{4}$  from that listed in the San Pedro I HSR.

Of the 182 SP PWRs found in the San Pedro I HSR within the Demonstration Project Area, 87 were determined to be potentially eligible for the preparation of *de minimis* water rights abstracts. Two stockponds were found to be greater than 15 acre-feet in capacity, 84 SP PWRs were placed in the NWRA category, and nine SP PWRs fall into other categories as noted in the table. **Figure 2-4** displays the locations of the categories of the SP PWRs found in the Demonstration Project Area.

#### 2.4.5 Issues

No significant issues were encountered during the *de minimis* evaluation of stockponds within the Demonstration Project Area. It is notable that nearly half of the stockponds evaluated were placed in the NWRA category. It is possible that SOC's and previous filings were filed for these water uses after the publication of the 1991 San Pedro I HSR.



Stockponds which are currently considered in the NWRA category could potentially be classified as *de minimis* as a result of the San Pedro II HSR investigations.

## **2.5 Domestic *De Minimis* Uses**

### **2.5.1 San Pedro I HSR**

In the San Pedro I HSR (p. 541), domestic uses (DM) were defined as:

water used for household needs and small commercial establishments including small businesses and restaurants. Trailer parks are also included in the domestic use category. Associated irrigation of less than two acres supplied by groundwater or less than 0.1 acres supplied by surface water or less than 0.5 acres supplied by Zone 1 groundwater [footnote] is included in a domestic use.

A DM PWR was created for each residence/small business visible on aerial photography and outside of the service areas of municipal water systems, private water companies, domestic water improvement districts, or cooperatives supplying four or more users. DM PWRs were created whether or not there were SOC's and/or previous filings associated with the use. Neither apparent first use dates nor quantities of use were assigned to DM PWRs. DM PWRs were not mapped, but their locations were described to the nearest ¼, ¼, ¼ within a section, township and range.

### **2.5.2 1994 *De Minimis* Decision**

The Special Master defined “domestic use” in Conclusion of Law No. 6 as:

the use of privately supplied water by persons in a permanent dwelling; the watering of pets and farmyard animals; and the irrigation of lawns, gardens, and orchards on land adjoining the dwelling.

(1994 *De Minimis* Decision at 38, n. 14.) The Special Master then further defined *de minimis* domestic uses as:



All domestic uses [DM], as that term is defined in Conclusion of Law No. 6, so long as they are supplied by the landowner or occupant from a well or surface water source (“self-supplied”) and provide water for a single family household and associated outdoor activities on adjoining land not exceeding ( $\leq$ ) 0.2 acres. Remaining domestic uses will be adjudicated during the normal course of the adjudication.

(1994 *De Minimis* Decision at 38-39). Analyzing the DM PWRs in the San Pedro I HSR and determining which ones met the Special Master’s definition of a *de minimis* use was the most challenging of the four categories of *de minimis* uses. ADWR had to assess whether the domestic use was served by a single well or spring, whether the well or spring also served other PWRs, and whether the size of the acreage, if any, associated with the domestic use was greater than 0.2 acres. ADWR also had to then determine a priority date in accordance with the Special Master’s directive.

### 2.5.3 ADWR’s *De Minimis* Investigation Methods

1. ADWR utilized the ¼, ¼, ¼ legal description provided in the 1991 San Pedro I HSR, the scanned 1984 and 1985 aerial photographs with their associated field investigation mylar overlays, and copies of 1980’s vintage Cochise County assessor information and maps found in the WFR files to locate the DM PWRs on recent imagery within ADWR’s GIS. Each domestic use was then mapped on the more recent geo-rectified imagery and the UTM coordinates of a point located on the apparent domicile was determined. The mapped locations will be important in distinguishing DM PWRs included in the 1991 San Pedro I HSR from new DM PWRs to be evaluated during the San Pedro II HSR investigations.
2. Each DM PWR was then evaluated to determine whether it met the *de minimis* standard provided in the 1994 *De Minimis* Decision. This evaluation consisted of:
  - a. Querying AIS to identify DM PWRs that were served by more than one well or spring. These were considered to be non-*de minimis*.





- b. Querying AIS to identify DM PWRs served by wells or springs that also provided water to other PWRs. These were considered to be non-*de minimis*.
  - c. Examining the WFR and 1984 or 1985 imagery to determine whether the DM PWR consisted of a “single family household.” For example, the San Pedro I HSR would consider an RV park to be a DM PWR while the 1994 *De Minimis* Decision would not.
  - d. Filings associated with the DM PWR were reviewed to determine whether the well was shared with other DM PWRs. DM PWRs served by shared wells were not considered *de minimis*.
  - e. Finally, the 1984 or 1985 aerial imagery was assessed to determine if more than 0.2 acres of apparently irrigated land was associated with the DM PWR. DM PWRs associated with more than 0.2 acres of irrigated land were not considered *de minimis*.
3. Priority dates were assigned to those DM PWRs that were determined to be *de minimis* and were associated with SOC. Because very few DM PWRs were associated with previous filings, the priority dates were generally derived from the SOC and well registration records (55s). *De minimis* DM PWRs without SOC were placed in the NWRA category.

The 1994 *De Minimis* Decision stated that a potential water right must have a “preadjudication filing or other legal basis” or it will be placed in the NWRA category. As noted, the vast majority of DM PWRs do not have previous filings because their source of water is a well. ADWR assigned “Well” as the Basis of Water Right for these DM PWRs.



#### 2.5.4 ADWR *De Minimis* Findings

The 1991 San Pedro I HSR contains 549 DM PWRs within the Demonstration Project Area. The *de minimis* investigations conducted by ADWR, as described above, found that 396 of these potentially met the definition of a *de minimis* domestic water use in accordance with the 1994 *De Minimis* Decision. Of these 396, 164 did not have SOC's and thus were placed in the NWRA category. **Table 2-4** and **Figure 2-5** present the 232 DM PWRs that are potentially suitable for the preparation of a *de minimis* water right abstract while **Table 2-5** and **Figure 2-6** present the 164 DM PWRs listed in the NWRA category. As was the case for stockponds, there are instances where the ¼, ¼, ¼ location of a DM PWR as determined from geo-rectified aerial imagery ("Place of Use GIS") differs slightly from the location provided in the 1991 San Pedro I HSR ("Place of Use HSR"). This difference occurs less than 20% of the time and is most likely the result of difficulties in accurately determining the location using the 1985 aerial imagery during the investigations that produced the 1991 San Pedro I HSR. Both places of use are included in **Tables 2-4** and **2-5**.

**Table 2-6** lists the 153 DM PWRs that do not appear to meet the *de minimis* definition in the 1994 *De Minimis* Decision. The comment section of the table describes why ADWR did not believe that the DM PWR was *de minimis* in nature. The locations of these DM PWRs are shown on **Figure 2-7**.

#### 2.5.5 Issues

There are a number of issues associated with the assessment of *de minimis* DM PWRs.

- Due to the poor resolution of the 1984 and 1985 imagery, it is very difficult to determine whether 0.2 acres of irrigated trees, gardens, and lawns are associated with a DM PWR. Larger gardens are visible, but significant uncertainty exists when evaluating whether smaller areas are irrigated.



- The area of irrigated acreage can change with time, either increasing or decreasing with respect to the  $\leq 0.2$  acre criterion. A DM PWR could be considered *de minimis* prior to 1991, but not so today, or vice versa.
- Similarly, a DM PWR with a single well prior to 1991 may now be sharing that well with other homes that have been built since 1991. During the Demonstration Project investigations, ADWR did not attempt to determine which homes shared wells unless this information was clearly provided in the SOC's or well registration information. Even in those instances, it is often not clear how many or which homes are sharing a well.
- There are 164 potentially *de minimis* DM PWRs that are not associated with SOC's in the 1991 San Pedro I HSR and are thus placed in the NWRA category. It is possible that SOC's have been filed for many of these uses since 1991.
- ADWR will need to determine the quantity of water use associated with each non-*de minimis* DM PWR served by a well in order to conduct a cone of depression test to determine whether the use is subject to the adjudication.

**Figure 2-8** illustrates aerial photograph resolution issues associated with the assessment of *de minimis* DM PWRs.

## 2.6 Recommendations

ADWR found no significant issues during its *de minimis* assessment of SW, WL, and SP PWRs found within the Demonstration Project Area which would prevent it from compiling the appropriate information to prepare water rights abstracts for these uses. ADWR believes it can readily conduct a similar assessment of all remaining SW, WL, and SP PWRs found in the 1991 San Pedro I HSR and is currently creating a GIS tool and investigative procedures to perform this work. New SW, WL, and SP PWRs identified during future San Pedro II HSR investigations can be handled separately.



ADWR encountered significant difficulties assessing *de minimis* DM PWRs, most notably the poor resolution of the 1985 imagery and the observation that whether or not a domestic use could be considered *de minimis* can vary over time depending on the area of irrigation associated with the domestic use and whether it shares a well. *De minimis* DM PWRs can become non-*de minimis* and vice versa. To avoid claimant confusion, which could occur when the findings in the San Pedro I HSR conflict with findings in the San Pedro II HSR, and make the most efficient use of resources, ADWR recommends that both the DM PWRs included in the 1991 San Pedro I HSR and the new DM PWRs that will be included in the San Pedro II HSR be evaluated during the San Pedro II HSR investigations. A single catalog of potential *de minimis* domestic water rights should be created at that time.



## 3.0 CONE OF DEPRESSION

### 3.1 Introduction

Following the Arizona Supreme Court’s opinion in *Gila IV*, the adjudication court directed ADWR to utilize a “cone of depression test”<sup>10</sup> that can reasonably, reliably, economically, and expediently calculate the drawdown occurring at the subflow zone boundary resulting from a well located outside the subflow zone that is pumping under steady-state conditions. If the calculated drawdown is greater than or equal to 0.1 feet, then the well would be subject to the adjudication. *See Gila IV*, 198 Ariz. at 342-43, ¶¶ 38-40 (2000); Order dated September 15, 2005 (filed October 4, 2005), Contested Case No. W1-103 (2005 Order) at 24-25, 28-30. Although the adjudication court agreed that ADWR should use a “focused and reasonable mechanism for obtaining highly reliable data which are used in setting model parameters,” the court also acknowledged that “numerous assumptions and considerable judgment” are required and that “in many cases, the test results will only provide a rough approximation of actual field conditions.” 2005 Order at 29-30. The adjudication court also noted that an “absolute accurate quantification is not possible.” *Id.* at 28.

The Demonstration Project described in this report is used as a tool to determine whether ADWR’s proposed cone of depression testing methodology would meet the requirements described above. This is the third report concerning the development of a cone of depression test filed by ADWR in the last two years. *See* ADWR, April 2015, and ADWR, April 2016.

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<sup>10</sup> The cone of depression is the funnel-shaped area around a well where the withdrawal of groundwater through the well has lowered the water table. *In re the General Adjudication of all Rights to Use Water in the Gila River System and Source*, 198 Ariz. 330, 343, ¶ 38 (2000) (*Gila IV*). Note that the lowering of head within a confined system is not considered a “cone of depression.”



As part of the Demonstration Project, ADWR tested 41 wells within the Demonstration Project Area (**Figure 3-1**) using both the analytical model AquiferWin32© (ESI, 2011), which contains all the functionality of WinFlow©, and the numerical model MODFLOW. The MODFLOW model utilized was the USGS 2007 “Ground-Water Flow Model of the Sierra Vista Subwatershed and Sonoran Portions of the Upper San Pedro Basin, Southeastern Arizona, United States, and Northern Sonora, Mexico,” USGS Scientific Investigations Report 2006-5228 (USGS USP Groundwater Model), which was used without modifications, other than adding the pumping wells.

In order to conduct the testing, ADWR located each well relative to ADWR’s proposed subflow zone, estimated the steady-state pumping rate, and for the AquiferWin32© analysis, estimated the hydraulic conductivity and determined the depth of the pumping well. The MODFLOW analysis used the aquifer properties established for the model and generally assigned pumping to the uppermost saturated layer of the model. How these parameters were determined and utilized is described in greater detail below.

For both AquiferWin32© and the USGS USP Groundwater Model, the following sections present descriptions of the data used by ADWR, analyses, findings, *de minimis* domestic uses, identification of issues and conclusions.

## **3.2 Data**

### **3.2.1 Well Location**

A total of 166 wells (**Figure 3-1**) within the Demonstration Project area were plotted on the 1991 San Pedro I HSR maps contained in Volume 9 of the HSR. These maps were scanned and the well locations digitized into ADWR’s GIS. Minor corrections to some well locations were made if the well was readily visible in current imagery. The proposed subflow zone location and the surface expression of consolidated non-alluvial materials (“hard rock”) were also incorporated into the GIS.



Forty-one irrigation and municipal supply wells outside of the proposed subflow zone were selected for the cone of depression test analysis based on their varied locations and the relative ease of estimating their pumping rates.<sup>11</sup> For these 41 wells, the shortest distances from the well to the proposed subflow zone boundary and to the “hard rock” boundary were calculated using GIS for use in the AquiferWin32© analysis. **Figure 3-2** illustrates how the distances were calculated and used. Note that the “hard rock” boundary is shown as the Generalized Impermeable Boundary in **Figure 3-2**.

The locations of those 41 wells were also placed in a GIS shapefile, which was used to identify the appropriate MODFLOW model grid cells to which pumping was assigned. Cells containing the proposed subflow zone boundary were also identified. Note that MODFLOW simulated the pumping at the center of the cell containing the well and calculated drawdown at the center of the cells containing the proposed subflow zone boundary (**Figure 3-3**). Each cell size is a 250-meter square.

### 3.2.2 Steady-state Pumping Rate (Q)

ADWR determined the steady state pumping rate for each well in gallons per minute (gpm) by estimating the annual use in acre-feet and multiplying by a conversion factor of 0.62. Annual quantities of use for irrigation wells were taken from the 1991 San Pedro I HSR. Irrigation (IR) PWRs supplied by wells pumping Zone 1 groundwater<sup>12</sup> were assigned three different volumes in Volume 3 (Sierra Vista Subwatershed) of the HSR: 1) the maximum observed from the previous five years of use; 2) a regional value based on uniform water duties within regional farming conditions; and 3) a maximum potential quantity based on the highest water using crop (generally alfalfa). ADWR utilized the

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<sup>11</sup> Five of the 41 wells were replacements of wells described in the San Pedro I HSR. These wells are noted in Table 3-1.

<sup>12</sup> The San Pedro I HSR divided groundwater into zones. Zone 1 groundwater was considered to be appropriable subflow while Zone 2 groundwater was not. (San Pedro I HSR, Volume 3, page 26.) ADWR understands that these zones were based on a test developed by the adjudication court that was overturned by the Arizona Supreme Court in *Gila II*, 175 Ariz. 382 (1993).



maximum observed value(s) for the IR PWR(s) and divided the values evenly among the wells serving the PWRs.

Some IR PWRs found in the Demonstration Project Area were only described in Volume 7 of the San Pedro I HSR, which is entitled “Zone 2 Well Reports.” The annual quantities of use for IR PWRs in Volume 7 were assigned only a single value in the HSR based on the regional values, rather than the maximum observed. ADWR utilized the regional values for the Demonstration Project investigation, but recognizes that consistently derived values of irrigation water use will be essential for the actual deployment of the cone of depression test.

Municipal (MU) PWRs whose service areas were completely within the Demonstration Project Area were assigned a quantity of use equal to the highest quantity shown in the five years of water use described in the Major User Reports of Volume 1 of the San Pedro I HSR. This quantity was divided equally among the wells serving the MU PWR. Community water system records were used to estimate the volumes pumped from wells within the Demonstration Project Area that served MU PWRs whose service areas crossed the Demonstration Project Area boundary. This practice was only made necessary by the artificial division of a service area by the Demonstration Project boundary.

### 3.2.3 Aquifer Properties (Hydraulic Conductivity (K) and Thickness) used in AquiferWin32© Only

The Drillers Log program (Kisser, K.G. and Haimson, 1981) was used to estimate the hydraulic conductivity<sup>13</sup> of each well tested using the AquiferWin32© program. Lithologic descriptions reported on driller’s logs were matched with standardized codes representing a group of drillers’ terms with predetermined hydraulic conductivity values. For each well, a weighted average hydraulic conductivity based on the saturated

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<sup>13</sup> The hydraulic conductivity is a measure of the volume of water that can be transmitted through the aquifer materials in a unit of time. Multiplying the hydraulic conductivity by the aquifer thickness yields the aquifer’s transmissivity.





thickness of each lithologic interval was determined. Where possible, the driller's log for the subject well was evaluated. If the subject well did not have a log available, then wells in the vicinity of the subject well were evaluated.

The aquifer thickness was estimated by subtracting the elevation of the bottom of the well from the pre-development steady-state groundwater elevation calculated by the USGS USP Groundwater Model for the cell containing the well. Rather than estimating the pre-development groundwater elevation using early well records and existing literature, information from the USGS USP Groundwater Model was used as a convenience<sup>14</sup>.

One well (Well 15) did not have a reported well depth. ADWR assigned an assumed aquifer thickness of 100 feet for this well. ADWR would attempt to measure the actual well depth during actual cone of depression testing.

ADWR used only the pre-development saturated thickness accessible to the well and did not include aquifer materials potentially available below the well in the AquiferWin32© analysis. This practice is consistent with ADWR's well impact analyses conducted within Active Management Areas that evaluate the existing well, rather than a hypothetical deeper well.

### **3.3 AquiferWin32© Analysis**

The steady-state module in AquiferWin32© uses the "analytical element method" (AEM) developed by Strack (1988). The AEM produces composite analytical solutions across a user-defined modeling domain by superimposing the cumulative effects of multiple "analytical elements" and boundary conditions defined by the user. Analytical elements represent hydrological features such as pumping wells, gaining or losing river reaches, and areas of recharge. The model calculates results using a grid, the size of which can be

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<sup>14</sup> Note that there were three wells where the pre-development steady-state groundwater elevation calculated by the USGS USP Groundwater Model was below the elevation of the bottom of the well. In those instances, the shallowest available depth to groundwater was used to calculate the aquifer thickness.



set by the user. Results at locations between grid points are calculated through interpolation.

ADWR elected to use image wells to emulate the effects of impermeable “hard rock” barriers and perennial streams such as the San Pedro River. The U.S. Geological Survey Water-Supply Paper 1536-E by Ferris, et. al. (USGS, 1962) provides a method for calculating drawdown resulting from a discharging well in an aquifer bounded by an impermeable barrier parallel to a perennial stream (**Figure 3-4**). In their example, the distance A is equal to twice the distance from the discharging real well to the impermeable barrier and the distance B is equal to twice the distance from the discharging real well to the perennial stream. A recharging image well ( $I_1$ ) is added opposite the perennial stream at a distance B from the discharging real well, and a discharging image well ( $I_2$ ) is added opposite the impermeable barrier at a distance A from the discharging real well. If the condition that no drawdown can occur along the perennial stream (San Pedro River) and no drawdown can occur across the impermeable barrier (estimated “hard rock” barrier) is met, then no additional image wells need to be added. However, if drawdown occurs across those boundaries a secondary set of image wells ( $I_3$  and  $I_4$ ) need to be added. Pairs of image wells should be added until the effect of adding image well pairs have a negligible effect on the impermeable barrier and the perennial stream.

For this analysis, ADWR added pairs of image wells until the image wells placed on the opposite side of the river from where the subject well was located appeared to produce no drawdown at the centerline of the simulated San Pedro River. ADWR’s analysis indicated that eight image wells were optimal. As a result, the 41 cone of depression tests were conducted using eight image wells to emulate the impacts of the impermeable hard rock and the perennial San Pedro River. The addition of more than eight image wells had negligible additional impact on the simulation.



As previously noted (ADWR, April 2015, ADWR, April 2016), the proper placement of the “reference head” point is very important for steady-state calculations of drawdown using AquiferWin32©. Drawdown will always be zero at the reference head and all calculated heads are relative to the reference head. The guidance document for AquiferWin32© states “All computations are based upon the reference head which should be located as far from wells, ponds, etc. as possible.” (Starting a Winflow Model, page 5, (ESI, 2011)).

ADWR conducted investigations to assess the optimal placement of the reference head at a single relative location that would apply to all analyses using AquiferWin32©. The investigations consisted of: 1) operating AquiferWin32© in transient mode for various pumping rates and durations to assess distances where zero drawdown would occur relative to the pumping well; and 2) varying the distance from certain pumping wells to the reference head in an effort to “calibrate” the AquiferWin32© results against the USGS USP Groundwater Flow Model. Based on these analyses, ADWR selected a point located 30 miles (158,400 feet) north of the origin (point 0,0 on **Figure 3-2**) of the AquiferWin32© model as the reference head. Appendix B contains an example of how AquiferWin32© was used for one of the analyzed wells.

### **3.4 MODFLOW Analysis**

Simulated steady-state drawdowns at the proposed San Pedro River subflow zone boundary were estimated for the selected 41 pumping wells using the USGS USP Groundwater Flow Model. The assigned pumping rates for the wells were identical to those used in the AquiferWin32© analysis and the well locations were determined as described in Section 3.2.1.

Steady-state drawdowns were calculated for each well pumping simulation by subtracting the simulated output heads from the output heads from a steady-state simulation that did not contain well pumping. The simulated steady-state drawdown was then evaluated at each model cell that contained a segment of the subflow zone boundary. This



comparison was only conducted for subflow zone boundary cells with row indices greater than 86, those rows most impacted by pumping in the Demonstration Project Area.

### 3.5 Findings

**Table 3-1** provides data used in the AquiferWin32© and MODFLOW analyses, as well as a comparison of the results from both analyses for the 41 selected wells. AquiferWin32© reports a single drawdown calculation at ADWR's proposed subflow zone while MODFLOW reports drawdowns for each of its five model layers. Note that the MODFLOW results for layer 5 were not considered because layer 5 behaves as a confined aquifer in the vicinity of the proposed subflow zone. Also note that when MODFLOW is used, the distance from the well to the location where its steady-state drawdown intercepts the proposed subflow zone boundary can vary between model layers because of the differing aquifer properties of the layers.

For 32 of the 41 tested wells (78%), both MODFLOW and AquiferWin32© agree that the calculated drawdown at the proposed subflow zone boundary is *either* greater than or equal to 0.10 feet *or* less than 0.10 feet. These wells are highlighted in green on **Table 3-1**.

For five of the 41 wells (12%, highlighted in blue on **Table 3-1**), the AquiferWin32© simulation indicates that the drawdown at the proposed subflow zone boundary is greater than or equal to 0.10 feet while the MODFLOW simulation does not. For two of these five wells, the difference between the MODFLOW and AquiferWin32© result is less than 0.08 feet. For an additional two wells, the difference between MODFLOW and AquiferWin32© result is between 0.08 and 0.42 feet. For the fifth well (Well 26), the difference is greater than five feet. The difference in this fifth well may be due to potentially anomalous data, which is further discussed in **Section 3.7.3** below.

For four of the 41 wells (10%, highlighted in yellow on **Table 3-1**), the MODFLOW simulation indicates that the drawdown at the proposed subflow zone boundary is greater than or equal to 0.10 feet while the AquiferWin32© simulation does not. For three of



these four wells, the difference between the MODFLOW and AquiferWin32© result is less than 0.085 feet. For the fourth well, the difference is 0.87 feet.

ADWR believes that the MODFLOW and AquiferWin32© results correlate reasonably well with each other.

### **3.6 *De Minimis* Domestic Wells**

The 1994 *De Minimis* Decision assigns a quantity of “not to exceed one acre-foot per year” to each *de minimis* domestic use as defined in the decision. (See discussion above in Section 2.1.1.) One-acre foot equals 0.62 gpm of steady-state pumping. ADWR used AquiferWin32© to determine the distance from the proposed subflow zone boundary that a *de minimis* domestic well continuously pumping 0.62 gpm would have to be in order to cause exactly 0.10 feet of drawdown at the boundary. ADWR’s plan was to use this distance as a “buffer line” so that all *de minimis* domestics located outside of that line would not be subject to the adjudication.

Using a hydraulic conductivity of 13 feet per day and an aquifer thickness of 254 feet, both values representative of *de minimis* domestic wells located near the subflow zone in the Demonstration Project Area, ADWR found that the distance to the buffer line was essentially zero. In other words, a *de minimis* domestic well located on ADWR’s proposed subflow zone boundary pumping 0.62 gpm would not cause 0.10 feet of drawdown at that boundary. Conducting a similar analysis using MODFLOW produced comparable results.

### **3.7 Issues**

#### **3.7.1 Well Location**

ADWR does not believe that there are significant issues related to identifying well locations for use in the AquiferWin32© analyses. ADWR can identify most well



locations confidently using its records, imagery, and if necessary, field inspections. Distances from the wells to relevant boundaries can be measured accurately using GIS.

With regards to the MODFLOW analyses, the simulation of the well at the center of a cell could possibly create uncertainty for wells whose calculated drawdown is very near the standard of 0.10 feet. This will likely only be of concern for those wells with relatively low pumping rates that are near ADWR's proposed subflow zone boundary. Based on the analyses described above, wells with relatively larger pumping rates near the proposed subflow zone boundary will likely have drawdowns greater than 0.10 feet. Wells with low pumping rates that are farther from the proposed subflow zone boundary will either have steady-state drawdowns less than 0.10 feet, or will likely not be sensitive to movements of no more than a few hundred feet (half of a 250-meter square cell) because the subflow zone boundary will intersect a relatively flatter portion of the cone of depression.

Whether or not the placement of the well at the center of the grid cell significantly impacts the drawdown could be tested by moving the well to adjoining cells and repeating the analysis. For those few wells where moving the well between cells does affect the outcome, the MODFLOW model grid could be refined at both the well and the proposed subflow zone boundary to reduce uncertainty.

### 3.7.2 Steady-state Pumping Rate (Q)

A sufficiently reliable determination of the steady-state pumping rate, based on the annual amount of water withdrawn from a well, will be critical to cone of depression testing, especially for wells with relatively low pumping rates. For instance, whether a well has a steady-state pumping rate of 100 gpm or 200 gpm may not matter, because in either case it could have a simulated drawdown at the proposed subflow zone boundary of greater than 0.10 feet. However, determining whether a well has a steady-state pumping rate of 20 gpm or 30 gpm may be very important because the drawdown caused



by 30 gpm of pumping may be greater than 0.10 feet while that caused by 20 gpm of pumping may not.

Reliably determining pumping rates may prove especially challenging in areas such as St. David, where there are many relatively small fields that are supplied with varying amounts of surface water from the St. David Ditch, supplemented by pumped groundwater when necessary. In such an environment, there may be occasional instances where the data currently available is simply not reliable enough to make a determination.

### 3.7.3 Aquifer Properties (Hydraulic Conductivity (K) and Thickness) used in AquiferWin32© Only

Hydraulic conductivity is one of the most widely varying physical parameters, with values ranging over 12 orders of magnitude between such materials as tight clays and coarse gravels (Heath, 2004). Estimating hydraulic conductivities, even to the nearest order of magnitude, can often prove challenging. As described in **Section 3.2.3**, ADWR estimated hydraulic conductivities for this project using the Drillers Log program (Kisser, K.G. and Haimson, 1981) and well driller logs from the subject well or nearby wells. Based on the results discussed in **Section 3.5**, ADWR's hydraulic conductivity estimates were generally reasonable using this method, resulting in significant agreement between the two methods of calculating drawdown, with the possible exception of Well 26, the fifth well referenced in **Section 3.5** above.

The estimated hydraulic conductivity for Well 26 is 0.2 ft/day, the lowest value of all 41 wells. If the drawdown calculations for Well 26 had been conducted using the hydraulic conductivity (4.9 ft/day) value for nearby Well 25, located approximately 2,500 feet away, the resulting simulated drawdown at the proposed subflow zone boundary would have been 0.23 feet rather than 5.87 feet. ADWR will need to carefully review estimations of hydraulic conductivity with special attention to outlying values and potentially allow for the submittal of additional data after conducting a preliminary cone of depression test.



ADWR was able to estimate aquifer thicknesses for all wells except Well 15, where no well construction depth was available (See **Section 3.2.3**). An aquifer thickness value was assumed for the purposes of this project. ADWR would attempt to measure the well depth during HSR investigations and would provide the basis for an assumed depth if it were not possible to collect an actual measurement.

### 3.8 Conclusions

As noted by the adjudication court, it is important to remember that an “absolute accurate quantification is not possible” with a cone of depression test. 2005 Order at 28. No well can be pumped for very long periods of time, and still be isolated from the impacts of every other well around it. The best that can be done is to devise methods that satisfy the court’s requirements and utilize the best available data.

Based on the analyses described above ADWR believes:

- AquiferWin32© is a suitable means of conducting the cone of depression test when used in the steady-state, drawdown mode with the appropriate placement of image wells. The use of MODFLOW is not required. ADWR anticipates conducting cone of depression tests during its investigations and therefore believes that AquiferWin32© would be the most expedient method to utilize on a well-by-well basis.
- MODFLOW is also a suitable means of conducting a cone of depression test when used as described in **Section 3.4** above. ADWR could review and adopt appropriately designed MODFLOW groundwater flow models constructed by others to conduct the cone of depression test as long as they satisfied certain minimum requirements. **Appendix C** contains what ADWR believes to be the minimum requirements for MODFLOW models submitted for cone of depression testing use. Note that the USGS USP Groundwater Flow Model has not been evaluated with respect to these requirements.





- Except in instances where aquifer transmissivity is unusually low at the subflow zone boundary, groundwater withdrawn by individual wells to serve individual *de minimis* domestic uses outside of the proposed subflow zone boundary would not be subject to the adjudication.
- Based on the analyses described above, it appears that the majority of the wells located within the San Pedro River watershed where more than 50 acre-feet is withdrawn annually (31 gpm steady-state flow rate) would be subject to the adjudication.



## 4.0 SUMMARY

As noted above, ADWR believes that it can readily assess *de minimis* stockwatering, wildlife and stockpond uses identified in the 1991 San Pedro I HSR. However, due to difficulties encountered in assessing *de minimis* domestic uses during the Demonstration Project, ADWR recommends that the *de minimis* domestic uses identified in the 1991 San Pedro I HSR be assessed as part of the San Pedro II HSR.

ADWR believes that AquiferWin32© is a suitable means of conducting the cone of depression test when used in the steady-state, drawdown mode with the appropriate placement of image wells. MODFLOW is also a suitable means of conducting the cone of depression test when used as described in **Section 3.4** above, and if the MODFLOW groundwater flow model satisfies certain requirements specified by ADWR in **Appendix C** to this report.



# TABLES

**Table 2-1. Assessment of Potentially *De Minimis* Stockwatering PWRs**

PROPOSED WATER RIGHT NUMBER	STATEMENT(S) OF CLAIMANT(S)	BASIS OF WATER RIGHT	OWNERSHIP (WFR LANDOWNER)	TYPE OF USE	PRIORITY DATE	SOURCE OF WATER	PLACE OF USE HSR	QUANTITY	CURRENT LAND OWNERSHIP	SAN PEDRO HSR LESSEE	COMMENTS
<i>Potential De Minimis Water Rights</i>											
111-22-008-SW001	39-0003332	36-0041839.0001	US FOREST SERVICE - CORONADO	SW	5/12/1910	SURFACE WATER	NENW01 23S 18E	REASONABLE USE	US FOREST SERVICE - CORONADO	HICKS, PAUL H.	
111-22-009-SW001-WL	39-0003778, 39-0008058	36-0011157, <b>36-0041159</b>	US FOREST SERVICE - CORONADO	SW	1/1/1884	SURFACE WATER	NESWSE27 23S 19E	REASONABLE USE	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	HSR PRIORITY DATE IS 1880
111-23-003-SW001-WL	39-0007901	36-0004701	ARIZONA STATE LAND DEPARTMENT	SW	12/31/1883	SURFACE WATER	SWSWNW16 23S 21E	REASONABLE USE	ARIZONA STATE LAND DEPT	OGUREK, VINCENT C- TRUSTEE	
111-23-003-SW002-WL	39-0007902	36-0004700	ARIZONA STATE LAND DEPARTMENT	SW	12/31/1883	SURFACE WATER	SWNWNW16 23S 21E	REASONABLE USE	ARIZONA STATE LAND DEPT	OGUREK, VINCENT C- TRUSTEE	
111-23-004-SW001-WL	39-0008056	36-0011154	US FOREST SERVICE - CORONADO	SW	12/31/1889	SURFACE WATER	SWNE28 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-23-004-SW002-WL	39-0003791, 39-0008060	36-0011202, <b>36-0020955</b>	US FOREST SERVICE - CORONADO	SW	1/1/1880	SURFACE WATER	SWSE28 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-23-004-SW003-WL	39-0003770, 39-0008057	36-0011203, <b>36-0020948</b>	US FOREST SERVICE - CORONADO	SW	1/1/1880	SURFACE WATER	SENE32 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-23-004-SW004	39-0003788	36-0020957	US FOREST SERVICE - CORONADO	SW	1/1/1880	SURFACE WATER	NENW33 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-23-004-SW005	39-0003790	36-0020951	US FOREST SERVICE - CORONADO	SW	1/1/1880	SURFACE WATER	SWSW33 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-23-004-SW006-WL	39-0008107	36-0011138	US FOREST SERVICE - CORONADO	SW	12/31/1889	SURFACE WATER	SWSE33 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-23-004-SW007-WL	39-0003789, 39-0008059	36-0011060, <b>36-0020954</b>	US FOREST SERVICE - CORONADO	SW	1/1/1880	SURFACE WATER	SWNWSE34 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-23-004-SW008-WL	39-0008061	36-0011204, <b>36-0020956</b>	US FOREST SERVICE - CORONADO	SW	1/1/1880	SURFACE WATER	SWNE03 24S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-23-004-SW009	39-0003767	36-0011056, <b>36-0020953</b>	US FOREST SERVICE - CORONADO	SW	1/1/1880	SURFACE WATER	NWSW03 24S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-23-004-SW010-WL	39-0003775, 39-0008110	36-0011055, <b>36-0020952</b>	US FOREST SERVICE - CORONADO	SW	1/1/1880	SURFACE WATER	NWNWNE10 24S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-23-004-SW011	39-0003782, 39-0003783	36-0013512, <b>36-0020946</b>	US FOREST SERVICE - CORONADO	SW	1/1/1880	SURFACE WATER	SENESE31 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-23-004-SW012	39-0003774	36-0041165	US FOREST SERVICE - CORONADO	SW	1/1/1884	SURFACE WATER	SENWNE14 24S 19E	REASONABLE USE	IROQUOIS LLC	LONE MOUNTAIN RANCH, INC.	OWNERSHIP CHANGE FROM FOREST SERVICE TO PRIVATE
111-23-004-SW013	39-0003776	36-0041163	US FOREST SERVICE - CORONADO	SW	1/1/1884	SURFACE WATER	SWSW25 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-23-004-SW014-WL	39-0003768, 39-0003771, 39-0003792, 39-0008054	36-0024103, 36-0041168, <b>36-0041169</b>	US FOREST SERVICE - CORONADO	SW	1/1/1884	SURFACE WATER	SENESE29 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	HSR PRIORITY DATE IS 1880
111-23-004-SW015	39-0003766	<b>36-0041154</b> , 4A-0001415	US FOREST SERVICE - CORONADO	SW	1/1/1884	SURFACE WATER	SESENE10 24S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-23-004-SW016-WL	39-0003780, 39-0008111	36-0011058, <b>36-0041157</b>	US FOREST SERVICE - CORONADO	SW	1/1/1884	SURFACE WATER	SWSW14 24S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	HSR PRIORITY DATE IS 1880
111-23-004-SW017	39-0003777	36-0013514	US FOREST SERVICE - CORONADO	SW	1/1/1884	SURFACE WATER	NENE26 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-23-004-SW018	39-0003999	36-0041160	US FOREST SERVICE - CORONADO	SW	1/1/1884	SURFACE WATER	SESWSW26 23S 19E	REASONABLE USE	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-23-004-SW019-WL	39-0003765, 39-0008062	36-0011236, <b>36-0041161</b>	US FOREST SERVICE - CORONADO	SW	1/1/1884	SURFACE WATER	SWNWNW28 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	HSR PRIORITY DATE IS 1880
111-23-004-SW020	39-0003737	33-0084558	US FOREST SERVICE - CORONADO	SW	6/6/1980	SURFACE WATER	NWSE33 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-23-004-SW021	39-0003787	36-0013515	US FOREST SERVICE - CORONADO	SW	1/1/1918	SURFACE WATER	SWNE30 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-23-004-SW022-WL	39-0012395	<b>33-0087660</b> , 36-0100101	US FOREST SERVICE - CORONADO	SW	7/9/1982	SURFACE WATER	SESW30 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-23-004-SW023	39-0003786	36-0041167	US FOREST SERVICE - CORONADO	SW	1/1/1884	SURFACE WATER	NENWNW31 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-23-004-SW024	39-0003785	36-0013513	US FOREST SERVICE - CORONADO	SW	1/1/1884	SURFACE WATER	SESW31 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-23-004-SW025	39-0003773	36-0041162	US FOREST SERVICE - CORONADO	SW	1/1/1884	SURFACE WATER	NESW29 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-23-006-SW001	39-0003784	36-0041166	LONE MOUNTAIN RANCH, INC.	SW	1/1/1884	SURFACE WATER	NWNESW02 24S 19E	REASONABLE USE	US FOREST SERVICE - CORONADO		OWNERSHIP CHANGE FROM PRIVATE TO FOREST SERVICE
111-23-006-SW003	39-0003795	36-0041164	LONE MOUNTAIN RANCH, INC.	SW	1/1/1884	SURFACE WATER	NESWNW12 24S 19E	REASONABLE USE	IROQUIOS LLC		
111-23-006-SW004	39-0003734	4A-0001484	LONE MOUNTAIN RANCH, INC.	SW	4/15/1941	SURFACE WATER	NENWNE05 24S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO		OWNERSHIP CHANGE FROM PRIVATE TO FOREST SERVICE
111-23-006-SW014	39-0003772, 39-0003781	<b>36-0020947</b> , 36-0020950	LONE MOUNTAIN RANCH, INC.	SW	1/1/1880	SURFACE WATER	SESENW05 24S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO		OWNERSHIP CHANGE FROM PRIVATE TO FOREST SERVICE
111-23-007-SW001-WL	39-0008134, 39-0008143	36-0011061	US FOREST SERVICE - CORONADO	SW	12/31/1889	SURFACE WATER	NESE16 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	MARCO, JOSEPH D.	
111-23-007-SW002-WL	39-0008151	36-0011059	US FOREST SERVICE - CORONADO	SW	12/31/1889	SURFACE WATER	SWNE18 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	MARCO, JOSEPH D.	



**Table 2-1. Assessment of Potentially *De Minimis* Stockwatering PWRs**

PROPOSED WATER RIGHT NUMBER	STATEMENT(S) OF CLAIMANT(S)	BASIS OF WATER RIGHT	OWNERSHIP (WFR LANDOWNER)	TYPE OF USE	PRORITY DATE	SOURCE OF WATER	PLACE OF USE HSR	QUANTITY	CURRENT LAND OWNERSHIP	SAN PEDRO HSR LESSEE	COMMENTS
<i>Potential De Minimis Water Rights</i>											
111-23-007-SW004	39-0000728	10-0215031.1100, 10-0215033.1100, <b>36-0075713</b>	US FOREST SERVICE - CORONADO	SW	12/31/1881	SURFACE WATER	SWNE15 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	MARCO, JOSEPH D.	
111-23-007-SW005-WL	39-0008031	33-0087282	US FOREST SERVICE - CORONADO	SW	3/16/1982	SURFACE WATER	SWNW13 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	MARCO, JOSEPH D.	
111-23-007-SW006	39-0008030	4A-0000866	US FOREST SERVICE - CORONADO	SW	9/27/1928	SURFACE WATER	NWSWNW22 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	MARCO, JOSEPH D.	
111-23-007-SW007-WL	39-0008064	10-0215034.1100, <b>36-0011155</b> , 4A-0000866	US FOREST SERVICE - CORONADO	SW	12/31/1889	SURFACE WATER	SENWNE22 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	MARCO, JOSEPH D.	
111-23-007-SW009-WL	39-0008033	<b>36-0011160</b> , 4A-0002082	US FOREST SERVICE - CORONADO	SW	12/31/1889	SURFACE WATER	NESENE22 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	MARCO, JOSEPH D.	
111-23-008-SW001-WL	39-0003863, 39-0008115	10-0217013.1100, 10-0218300.1100, <b>36-0011195</b> , 36-0026348	US FOREST SERVICE - CORONADO	SW	12/31/1889	SURFACE WATER	SWNESW04 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	BARCHAS, SARAH E	
111-23-008-SW002-WL	39-0008108	36-0011167	US FOREST SERVICE - CORONADO	SW	12/31/1889	SURFACE WATER	NENENE08 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	BARCHAS, SARAH E	
111-23-009-SW001-WL	39-0000730, 39-0008114	10-0225292.1100, 10-0226429.1100, <b>36-0011134</b> , 36-0075715	US FOREST SERVICE - CORONADO	SW	12/31/1889	SURFACE WATER	SENESE14 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	GREGOVICH, JAMES	
111-23-009-SW004	39-0002783	36-0066116	US FOREST SERVICE - CORONADO	SW	7/9/1964	SURFACE WATER	NENESW23 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	GREGOVICH, JAMES	
111-23-009-SW005	39-0002783	36-0066116	US FOREST SERVICE - CORONADO	SW	7/9/1964	SURFACE WATER	NENESW23 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	GREGOVICH, JAMES	
111-23-011-SW002-WL	39-0008113	<b>36-0011168</b> , C-0000152	US FOREST SERVICE - CORONADO	SW	12/31/1889	SURFACE WATER	NWSW25 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	MARCO, JOSEPH D.	
111-23-011-SW003-WL	39-0008149	10-0214393.1200, <b>36-0020973</b> <b>36-0011152</b> , C-0000153, C-0000156, C-0000157	US FOREST SERVICE - CORONADO	SW	12/31/1889	SURFACE WATER	NWSW35 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	MARCO, JOSEPH D.	
111-23-011-SW004-WL	39-0008150		US FOREST SERVICE - CORONADO	SW	12/31/1889	SURFACE WATER	SENW36 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	MARCO, JOSEPH D.	
111-23-011-SW005-WL	39-0003610, 39-0008146, 39-0008174	10-0217013.1100, 10-0218299.1100, 10-0224427.1100, 20-0217863, <b>36-0011140</b> , 36-0020979	US FOREST SERVICE - CORONADO	SW	12/31/1889	SURFACE WATER	SENW30 23S 21E	REASONABLE USE	US FOREST SERVICE - CORONADO	MARCO, JOSEPH D.	
111-23-011-SW006-WL	39-0008148	36-0011139	US FOREST SERVICE - CORONADO	SW	12/31/1889	SURFACE WATER	SWNW31 23S 21E	REASONABLE USE	US FOREST SERVICE - CORONADO	MARCO, JOSEPH D.	
111-23-011-SW007-WL	39-0008106	10-0224536.1100, <b>36-0011153</b>	US FOREST SERVICE - CORONADO	SW	12/31/1889	SURFACE WATER	SWSE31 23S 21E	REASONABLE USE	US FOREST SERVICE - CORONADO	MARCO, JOSEPH D.	
111-23-011-SW008-WL	39-0008144	36-0011142	US FOREST SERVICE - CORONADO	SW	12/31/1889	SURFACE WATER	NENW12 24S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	MARCO, JOSEPH D.	
111-23-011-SW009-WL	39-0008105	10-0225308.1100, <b>36-0011143</b>	US FOREST SERVICE - CORONADO	SW	12/31/1889	SURFACE WATER	NESW05 24S 21E	REASONABLE USE	US FOREST SERVICE - CORONADO	MARCO, JOSEPH D.	
111-23-037-SW001	39-0006471, 39-0006473	36-0029442	NEWMAN, DON OLIVER	SW	6/13/1903	SURFACE WATER	SWSENE03 23S 20E	REASONABLE USE	NEWMAN DON O & BETTY L REV LIVING TRUST		
111-23-055-SW001-WL	39-0013474	36-0005684	ARIZONA STATE LAND DEPARTMENT	SW	12/31/1883	SURFACE WATER	SWNWNW36 23S 21E	REASONABLE USE	ARIZONA STATE LAND DEPT	ROTWEILLER, PAUL W	
111-24-001-SW002-WL	39-0013480	36-0005690	ARIZONA STATE LAND DEPARTMENT	SW	12/31/1883	SURFACE WATER	NWNENW23 24S 23E	REASONABLE USE	ARIZONA STATE LAND DEPT	HARRIS, DAVID A	
111-24-001-SW004-WL	39-0007921	36-0004677	ARIZONA STATE LAND DEPARTMENT	SW	12/31/1883	SURFACE WATER	SENWNW16 24S 23E	REASONABLE USE	ARIZONA STATE LAND DEPT	HARRIS, DAVID A	
111-24-001-SW005-WL	39-0007922	36-0004699	ARIZONA STATE LAND DEPARTMENT	SW	12/31/1883	SURFACE WATER	NENENW20 24S 23E	REASONABLE USE	ARIZONA STATE LAND DEPT	HARRIS, DAVID A	
111-24-001-SW007-WL	39-0013477	36-0005687	ARIZONA STATE LAND DEPARTMENT	SW	12/31/1883	SURFACE WATER	NWNWNW17 24S 23E	REASONABLE USE	ARIZONA STATE LAND DEPT	HARRIS, DAVID A	
111-24-001-SW008-WL	39-0013478	36-0005688	ARIZONA STATE LAND DEPARTMENT	SW	12/31/1883	SURFACE WATER	NENWNE20 24S 23E	REASONABLE USE	ARIZONA STATE LAND DEPT	HARRIS, DAVID A	
111-24-002-SW001-WL	39-0007906	36-0004806	ARIZONA STATE LAND DEPARTMENT	SW	12/31/1883	SURFACE WATER	NESESE24 23S 22E	REASONABLE USE	ARIZONA STATE LAND DEPT	FIRST INTERSTATE BANK OF ARIZONA	
111-24-003-SW001-WL	39-0007923	36-0004692	ARIZONA STATE LAND DEPARTMENT	SW	12/31/1883	SURFACE WATER	NESWSW03 24S 23E	REASONABLE USE	ARIZONA STATE LAND DEPT	LADD, JOHN H & MARIE W.	
111-24-003-SW002-WL	39-0013479, 39-0014377	36-0005689	ARIZONA STATE LAND DEPARTMENT	SW	12/31/1883	SURFACE WATER	NENESW02 24S 23E	REASONABLE USE	ARIZONA STATE LAND DEPT	LADD, JOHN H & MARIE W.	
111-24-004-SW001-WL	39-0007915	36-0004839	ARIZONA STATE LAND DEPARTMENT	SW	12/31/1883	SURFACE WATER	NWNE25 23S 23E	REASONABLE USE	ARIZONA STATE LAND DEPT	POWER, MICHAEL W.	
111-24-005-SW001-WL	39-0013482	36-0005691	ARIZONA STATE LAND DEPARTMENT	SW	12/31/1883	SURFACE WATER	NWNWSW08 24S 24E	REASONABLE USE	ARIZONA STATE LAND DEPT	MILLER, CHARLES G	
111-24-009-SW001-WL	39-0006163, 39-0013475	<b>36-0005685</b> , 4A-0000504	ARIZONA STATE LAND DEPARTMENT	SW	12/31/1883	SURFACE WATER	SESWSE02 23S 23E	REASONABLE USE	ARIZONA STATE LAND DEPT	POWER, MICHAEL W.	
111-24-009-SW002-WL	39-0007909	36-0004793	ARIZONA STATE LAND DEPARTMENT	SW	12/31/1883	SURFACE WATER	NENENW16 23S 23E	REASONABLE USE	ARIZONA STATE LAND DEPT	POWER, MICHAEL W.	



**TABLE 2-1**

Table 2-1. Assessment of Potentially *De Minimis* Stockwatering PWRs

PROPOSED WATER RIGHT NUMBER	STATEMENT(S) OF CLAIMANT(S)	BASIS OF WATER RIGHT	OWNERSHIP (WFR LANDOWNER)	TYPE OF USE	PRORITY DATE	SOURCE OF WATER	PLACE OF USE HSR	QUANTITY	CURRENT LAND OWNERSHIP	SAN PEDRO HSR LESSEE	COMMENTS
<b>Potential De Minimis Water Rights</b>											
111-24-009-SW003-WL	39-0007910	36-0004792	ARIZONA STATE LAND DEPARTMENT	SW	12/31/1883	SURFACE WATER	NESWNE16 23S 23E	REASONABLE USE	ARIZONA STATE LAND DEPT	POWER, MICHAEL W.	
111-24-009-SW004-WL	39-0013476	36-0005686	ARIZONA STATE LAND DEPARTMENT	SW	12/31/1883	SURFACE WATER	NWNWSE32 23S 23E	REASONABLE USE	ARIZONA STATE LAND DEPT	POWER, MICHAEL W.	
111-24-010-SW002	39-0007912	36-0004790	ARIZONA STATE LAND DEPARTMENT	SW	12/31/1883	SURFACE WATER	NWSESW12 23S 22E	REASONABLE USE	ARIZONA STATE LAND DEPT	POWER, MICHAEL W.	
111-24-010-SW004-WL	39-0007911	36-0004791	ARIZONA STATE LAND DEPARTMENT	SW	12/31/1883	SURFACE WATER	NWSENE07 23S 23E	REASONABLE USE	ARIZONA STATE LAND DEPT	POWER, MICHAEL W.	
111-24-020-SW001	39-0002108, 39-0006164	10-0222309.1100, 10-0227189.1100, 36-0020697, 4A-0001249	BLM - SAFFORD DISTRICT	SW	8/14/1913	SURFACE WATER	SENWSW12 23S 23E	REASONABLE USE	BLM - SAFFORD DISTRICT	POWER, MICHAEL W.	
111-24-033-SW002	39-0002109	4A-0003888	POWER, MICHAEL W.	SW	3/27/1958	SURFACE WATER	NENENE13 23S 23E	REASONABLE USE	POWER MICHAEL W & BILLIE JOAN		
111-24-033-SW003	39-0002111	33-0062819	POWER, MICHAEL W.	SW	4/27/1978	SURFACE WATER	SWSESE12 23S 23E	REASONABLE USE	POWER MICHAEL W & BILLIE JOAN		
111-24-033-SW004	39-0002110	33-0062820	POWER, MICHAEL W.	SW	4/27/1978	SURFACE WATER	SWSWSW15 23S 23E	REASONABLE USE	POWER MICHAEL W & BILLIE JOAN		
111-24-042-SW001	39-0002521	10-0203315.1100, 36-0019772, 36-0019773, 36-0019774, 36-0019775, 36-0019776, 36-0019777, 36-0019778, 36-0019779, 36-0019780, 36-0019781, 36-0019782, 36-0019783, 36-0019784	LADD, JOHN H. & MARIE W.	SW	11/18/1891	SURFACE WATER	NENENW13 24S 23E	REASONABLE USE	LADD JOHN W & JO BETH		
111-24-062-SW001	39-0003440	36-0021713	ROZZANO, MARY E & WEED, PEGGY A	SW	1/1/1919	SURFACE WATER	SWNENW05 24S 24E	REASONABLE USE	UNITED STATES OF AMERICA		OWNERSHIP CHANGE FROM PRIVATE TO UNITED STATES
111-24-083-SW001	39-0006163	4A-0000504	WICK, ROBERT J.	SW	9/30/1924	SURFACE WATER	SWNW11 23S 23E	REASONABLE USE	WICK ROBERT J & AIDA E		
<b>Potential No Water Right Awarded</b>											
111-23-007-SW008	NO WATER RIGHT AWARDED	10-0216420.1100, 10-0216421.1100, 36-0020974	US FOREST SERVICE - CORONADO	SW		SURFACE WATER	NENWNE22 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	MARCO, JOSEPH D.	INSTREAM USE - MISSING SOC
111-23-062-SW001	39-0000120	NO WATER RIGHT AWARDED	MILLER, ADOLPH P.	SW		SURFACE WATER	SWNWSE09 23S 21E	REASONABLE USE	MILLER ADOLF PHILIP TRUSTEE		INSTREAM USE - MISSING PREVIOUS FILING
<b>Other</b>											
<b>PWR 107</b>											
111-24-020-SW032	39-0014440		BLM - SAFFORD DISTRICT	SW		SURFACE WATER	NENE13 23S 23E	REASONABLE USE	BLM - SAFFORD DISTRICT	POWER, MICHAEL W.	
111-24-087-SW031	39-0011228		BLM - SAFFORD DISTRICT	SW		SURFACE WATER	NENE12 23S 23E	REASONABLE USE	BLM - SAFFORD DISTRICT		
<b>Coronado National Memorial</b>											
111-23-016-SW001	39-0008208	36-0011163	NATIONAL PARK SERVICE	SW		SURFACE WATER	SENE07 24S 21E	REASONABLE USE	NATIONAL PARK SERVICE		
111-23-016-SW002-WL	39-0008152	36-0011205	NATIONAL PARK SERVICE	SW		SURFACE WATER	SWNW07 24S 21E	REASONABLE USE	NATIONAL PARK SERVICE		
111-23-016-SW003	39-0003794	36-0020949	NATIONAL PARK SERVICE	SW		SURFACE WATER	SENW11 24S 20E	REASONABLE USE	NATIONAL PARK SERVICE		
<b>San Pedro I HSR Errata</b>											
111-23-045-SW002-WL	39-0003863, 39-0003865, 39-0003866	36-0026348, 36-0026349	BARCHAS, SARAH E	SW		SURFACE WATER	NWNWSE34 23S 20E	REASONABLE USE	USA		MISLOCATED IN HSR - INCORRECT TOWNSHIP
111-23-009-SW002	39-0008147	36-0011172	US FOREST SERVICE - CORONADO	SW	SEE COMMENT	SURFACE WATER	NWNE34 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	GREGOVICH, JAMES	SOC CLAIMS STOCK AND WILDLIFE WHILE 36 CLAIMS WILDLIFE ONLY - PWR SHOULD BE WL RATHER THAN SW. CLAIMED FIRST USE DATE IS "TIME IMMEMORIAL"
111-23-009-SW003	39-0000732	10-0211263.1100, 36-0075717	US FOREST SERVICE - CORONADO	SW	1/1/1888	SURFACE WATER	SESESW23 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	GREGOVICH, JAMES	SOC AND 36 CLAIM MUNICIPAL ONLY - NO SW PWR SHOULD BE CREATED
111-23-009-SW006	39-0000729	36-0075714	US FOREST SERVICE - CORONADO	SW	4/27/1908	SURFACE WATER	SWNWNW26 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	GREGOVICH, JAMES	SOC AND 36 CLAIM MUNICIPAL ONLY - NO SW PWR SHOULD BE CREATED
111-23-022-SW005-WL	39-0008146	10-0217013.1100, 10-0218299.1100, 10-0224427.1100, 20-0217863, 36-0011140	BAUMKIRCHNER, EVERETT M.	SW	12/31/1889	SURFACE WATER	SENW30 23S 21E	REASONABLE USE			LOWERY SPRING ( 111-23-011-SW005) PROVIDES WATER TO THIS PROPERTY FOR STOCKWATERING PURPOSES. NO SW PWR SHOULD HAVE BEEN CREATED IN THIS WFR.



TABLE 2-1  
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Table 2-2. Assessment of Potentially *De Minimis* Wildlife PWRs

PROPOSED WATER RIGHT NUMBER	STATEMENT(S) OF CLAIMANT(S)	BASIS OF WATER RIGHT	OWNERSHIP (WFR LANDOWNER)	TYPE OF USE	PRORITY DATE	SOURCE OF WATER	PLACE OF USE	QUANTITY	CURRENT LAND OWNERSHIP	SAN PEDRO HSR LESSEE	COMMENTS
<i>Potential De Minimis Water Rights</i>											
111-23-009-WL002	39-0008147	36-0011172	US FOREST SERVICE - CORONADO	WL	"TIME IMMEMORIAL"	SURFACE WATER	NWNE34 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	GREGOVICH, JAMES	LISTED IN HSR AS 111-23-009-SW002
111-23-039-WL001	39-0006092, 39-0006093, 39-0006094, 39-0006095, 39-0006096	33-0078419	NATURE CONSERVANCY	WL	6/27/1979	SURFACE WATER	SENE09 23S 20E	REASONABLE USE	NATURE CONSERVANCY		
<i>Potential No Water Right Awarded</i>											
111-23-009-WL001	39-0013967	NO WATER RIGHT AWARDED	US FOREST SERVICE - CORONADO	WL		SURFACE WATER	SWSWNW26 23S 20E	REASONABLE USE	US FOREST SERVICE - CORONADO	GREGOVICH, JAMES	INSTREAM USE - MISSING PREVIOUS FILING
<i>Other</i>											
<i>San Pedro Riparian National Conservation Area (SPRNCA)</i>											
111-23-AAA-001-WL001	39-0000662, 39-0013610, 39-0013611, 39-0013998, 39-0013999, 39-0014506, 39-0014507	33-0095394, 33-0095789, 4A-0004069	BLM - SAFFORD DISTRICT	WL		SURFACE WATER	SWSWSW22 23S 22E	REASONABLE USE	BLM - SAFFORD DISTRICT		
111-24-CCB-011-WL001	39-0013610, 39-0014482, 39-0014485	33-0095780	BLM - SAFFORD DISTRICT	WL		SURFACE WATER	NWNENW19 24S 22E	REASONABLE USE	BLM - SAFFORD DISTRICT		
<i>Coronado National Memorial</i>											
111-23-016-WL001	39-0011129	33-0087251	NATIONAL PARK SERVICE	WL		SURFACE WATER	NWSE11 24S 20E	REASONABLE USE	NATIONAL PARK SERVICE		
111-23-016-WL002	39-0011129		NATIONAL PARK SERVICE	WL		SURFACE WATER	NENE12 24S 20E	REASONABLE USE	NATIONAL PARK SERVICE		
111-23-016-WL003	39-0011130		NATIONAL PARK SERVICE	WL		SURFACE WATER	NENE07 24S 21E	REASONABLE USE	NATIONAL PARK SERVICE		LOCATION CORRECTED TO: 24S 21E FROM 24S 20E



**Table 2-3. Assessment of Potentially *De Minimis* Stockpond PWRs**

PROPOSED WATER RIGHT NUMBER	STATEMENT(S) OF CLAIMANT(S)	BASIS OF WATER RIGHT	OWNERSHIP (WFR LANDOWNER)	TYPE OF USE	PRIORITY DATE	SOURCE OF WATER	PLACE OF USE HSR	PLACE OF USE GIS	QUANTITY	CURRENT LAND OWNERSHIP	SAN PEDRO HSR LESSEE	COMMENTS
<b>Potential De Minimis Water Rights</b>												
111-22-004-SP003-WL	39-0008467	38-0016990	US FOREST SERVICE - CORONADO	SP	12/31/1940	SURFACE WATER	NWSSENW06 23S 19E	NWSSENW06 23S 19E	NOT TO EXCEED 6.9 AF WITH CONTINUOUS FILL	US FOREST SERVICE - CORONADO	BOSS, HOWARD O.	
111-22-009-SP001-WL	39-0003717, 39-0008358	36-0041141, <b>38-0014992</b>	US FOREST SERVICE - CORONADO	SP	12/31/1946	SURFACE WATER	SWSWNW27 23S 19E	SWSWNW27 23S 19E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-22-009-SP002-WL	39-0003715, 39-0008420	36-0041158, <b>38-0014981</b>	US FOREST SERVICE - CORONADO	SP	12/31/1940	SURFACE WATER	NWSENE33 23S 19E	NWSENE33 23S 19E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-22-009-SP003-WL	39-0003721, 39-0008357	36-0041137, <b>38-0014991</b> , 38-0084544	US FOREST SERVICE - CORONADO	SP	12/31/1940	SURFACE WATER	NENWSW33 23S 19E	NENWSW33 23S 19E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-22-009-SP004-WL	39-0003702, 39-0008359	38-0018648	US FOREST SERVICE - CORONADO	SP	12/31/1976	SURFACE WATER	NESWNW34 23S 19E	NWSSENW34 23S 19E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-22-009-SP005-WL	39-0003709, 39-0008355	36-0041156, <b>38-0014979</b>	US FOREST SERVICE - CORONADO	SP	12/31/1940	SURFACE WATER	SWSENE03 24S 19E	SWSENE03 24S 19E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-22-009-SP006-WL	39-0003729, 39-0008355	36-0041690, <b>38-0014979</b> , 38-0084552	US FOREST SERVICE - CORONADO	SP	12/31/1940	SURFACE WATER	SWSENE03 24S 19E	SWSENE03 24S 19E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-22-009-SP007	39-0003708, 39-0008315	38-0013517	US FOREST SERVICE - CORONADO	SP	7/20/1976	SURFACE WATER	NESWSW03 24S 19E	SESWSW03 24S 19E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-22-009-SP009-WL	39-0003703, 39-0008314	33-0085921	US FOREST SERVICE - CORONADO	SP	10/1/1980	SURFACE WATER	NENESW10 24S 19E	SWNESW10 24S 19E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-22-009-SP010-WL	39-0003701, 39-0008416	38-0018647	US FOREST SERVICE - CORONADO	SP	12/31/1976	SURFACE WATER	SESESW15 24S 19E	SWNENW22 24S 19E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-22-009-SP011-WL	39-0003710, 39-0008418	<b>36-0041172</b> , 38-0018697	US FOREST SERVICE - CORONADO	SP	8/1/1947	SURFACE WATER	NENENE21 24S 19E	SENEENE21 24S 19E	NOT TO EXCEED 7.7 AF WITH CONTINUOUS FILL	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-22-010-SP001-WL	39-0003311, 39-0008419	38-0017005	US FOREST SERVICE - CORONADO	SP	12/31/1945	SURFACE WATER	NESWNE05 24S 19E	NESWNE05 24S 19E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	US FOREST SERVICE - CORONADO	BERCICH CATTLE COMPANY	
111-22-010-SP003-WL	39-0003309, 39-0008417	38-0016998, <b>38-0020964</b>	US FOREST SERVICE - CORONADO	SP	7/15/1931	SURFACE WATER	SENESW08 24S 19E	SENESW08 24S 19E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	US FOREST SERVICE - CORONADO	BERCICH CATTLE COMPANY	
111-22-010-SP004	39-0003312	38-0020963	US FOREST SERVICE - CORONADO	SP	12/31/1974	SURFACE WATER	NWSWSE17 24S 19E	SWSWSE17 24S 19E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	US FOREST SERVICE - CORONADO	BERCICH CATTLE COMPANY	
111-22-010-SP005	39-0003310	<b>36-0020961</b> , 38-0021060	US FOREST SERVICE - CORONADO	SP	4/1/1916	SURFACE WATER	SWNWNE19 24S 19E	SWSESW19 24S 19E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	US FOREST SERVICE - CORONADO	BERCICH CATTLE COMPANY	
111-22-026-SP001	39-0004220	<b>36-0015227</b> , 38-0067213	HATHAWAY, JAMES DAVID	SP	1/1/1918	SURFACE WATER	SWNESE18 24S 19E	SWNESE18 24S 19E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	VACA RANCH LLC		
111-22-026-SP002	39-0004220	<b>36-0015227</b> , 38-0067213	HATHAWAY, JAMES DAVID	SP	1/1/1918	SURFACE WATER	NWNESE18 24S 19E	NENESE18 24S 19E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	VACA RANCH LLC		
111-23-003-SP001-WL	39-0007901	38-0088199	ARIZONA STATE LAND DEPARTMENT	SP	12/31/1973	SURFACE WATER	NENENW16 23S 21E	NENENW16 23S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	ARIZONA STATE LAND DEPARTMENT	OGUREK, VINCENT C-TRUSTEE	PRIORITY DATE FROM AERIAL PHOTO.
111-23-003-SP002-WL	39-0007902	38-0088167	ARIZONA STATE LAND DEPARTMENT	SP	12/31/1973	SURFACE WATER	SENWNW16 23S 21E	SENWNW16 23S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	ARIZONA STATE LAND DEPARTMENT	OGUREK, VINCENT C-TRUSTEE	PRIORITY DATE FROM AERIAL PHOTO.
111-23-004-SP001-WL	39-0008353	38-0014982	US FOREST SERVICE - CORONADO	SP	12/31/1906	SURFACE WATER	NENWNW35 23S 19E	NWNENW35 23S 19E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-23-004-SP002	39-0003731	38-0084554	US FOREST SERVICE - CORONADO	SP	7/1/1945	SURFACE WATER	NWSWNW02 24S 19E	NWSWNW02 24S 19E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-23-004-SP003-WL	39-0003727, 39-0008427	36-0041171, <b>38-0014978</b>	US FOREST SERVICE - CORONADO	SP	12/31/1940	SURFACE WATER	NESESW07 24S 20E	NWSWSE07 24S 20E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-23-004-SP004-WL	39-0003730, 39-0008112, 39-0008318	<b>36-0041155</b> , 38-0021054	US FOREST SERVICE - CORONADO	SP	2/3/1921	SURFACE WATER	NENWSW10 24S 20E	NENWSW10 24S 20E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-23-004-SP006-WL	39-0003718, 39-0008425	36-0041170, <b>38-0014977</b>	US FOREST SERVICE - CORONADO	SP	12/31/1940	SURFACE WATER	SWSWNE18 24S 20E	SESWNE18 24S 20E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-23-004-SP008	39-0003719	36-0041691, <b>38-0084542</b>	US FOREST SERVICE - CORONADO	SP	1/1/1948	SURFACE WATER	NWNENE21 24S 20E	SWSWSE21 24S 20E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-23-004-SP009	39-0003706	38-0013522	US FOREST SERVICE - CORONADO	SP	7/15/1958	SURFACE WATER	NWSWNW02 24S 19E	NWSWNW02 24S 19E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-23-012-SP004	39-0012743	38-0094149	OGUREK, HENRY J & OGUREK, VINCENT P.	SP	8/31/1956	SURFACE WATER	NESESE13 23S 21E	NESESE13 23S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	OGUREK VINCENT P		
111-23-012-SP005	39-0003856	38-0060628	OGUREK, HENRY J & OGUREK, VINCENT P.	SP	12/31/1952	SURFACE WATER	NESWNE17 23S 21E	SENWNE17 23S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	OGUREK HENRY J & OGUREK VINCENT P TRUSTEES		
111-23-012-SP006	39-0003849	38-0060627	OGUREK, HENRY J & OGUREK, VINCENT P.	SP	9/1/1941	SURFACE WATER	NESENW14 23S 21E	NESENW14 23S 21E	NOT TO EXCEED 13.3 AF WITH CONTINUOUS FILL	OGUREK HENRY J & OGUREK VINCENT P TRUSTEES		
111-23-012-SP021	39-0012744	38-0094150	OGUREK, HENRY J & OGUREK, VINCENT P.	SP	7/31/1955	SURFACE WATER	SWNWSW13 23S 21E	SWNWSW13 23S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	OGUREK HENRY J & OGUREK VINCENT P TRUSTEES		
111-23-012-SP025	39-0012745	38-0094151	OGUREK, HENRY J & OGUREK, VINCENT P.	SP	7/31/1955	SURFACE WATER	SENESE14 23S 21E	SENESE14 23S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	OGUREK HENRY J & OGUREK VINCENT P TRUSTEES		
111-23-012-SP026	39-0012746	38-0094152	OGUREK, HENRY J & OGUREK, VINCENT P.	SP	8/31/1952	SURFACE WATER	SENWSW15 23S 21E	NWNWSW15 23S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	OGUREK HENRY J & OGUREK VINCENT P TRUSTEES		



**TABLE 2-3**

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**Table 2-3. Assessment of Potentially *De Minimis* Stockpond PWRs**

PROPOSED WATER RIGHT NUMBER	STATEMENT(S) OF CLAIMANT(S)	BASIS OF WATER RIGHT	OWNERSHIP (WFR LANDOWNER)	TYPE OF USE	PRIORITY DATE	SOURCE OF WATER	PLACE OF USE HSR	PLACE OF USE GIS	QUANTITY	CURRENT LAND OWNERSHIP	SAN PEDRO HSR LESSEE	COMMENTS
<b>Potential De Minimis Water Rights</b>												
111-23-012-SP029	39-0012747	38-0094390	OGUREK, HENRY J & OGUREK, VINCENT P.	SP	8/31/1954	SURFACE WATER	SEWNWE14 23S 21E	SEWNWE14 23S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	OGUREK HENRY J & OGUREK VINCENT P TRUSTEES		
111-23-019-SP001	39-0002231	38-0063802	CLINTON, JOE A.	SP	7/10/1947	SURFACE WATER	SESENW07 24S 22E	SESENW07 24S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	SYLVESTER FAMILY LIV TRUST		
111-23-019-SP002	39-0002232	38-0063801	CLINTON, JOE A.	SP	5/10/1947	SURFACE WATER	SESESE06 24S 22E	SESESE06 24S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	SYLVESTER FAMILY LIV TRUST		
111-23-019-SP003	39-0002229	38-0064282	CLINTON, JOE A.	SP	5/10/1947	SURFACE WATER	SWSWSW07 24S 22E	NWSWSW07 24S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	SYLVESTER FAMILY LIV TRUST		
111-23-019-SP004	39-0002228	38-0063803	CLINTON, JOE A.	SP	7/15/1947	SURFACE WATER	NESESW32 23S 22E	NESESW32 23S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	COCHISE COUNTY		
111-23-019-SP005	39-0002230	38-0064283	CLINTON, JOE A.	SP	7/20/1947	SURFACE WATER	NESWSE32 23S 22E	NESWSE32 23S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	COCHISE COUNTY		
111-23-031-SP001	39-0000687	36-0013349, 38-0013370, 3R-0001574	TENNECO ARIZONA PROPERTY CORPORATION	SP	12/31/1938	SURFACE WATER	NENWSE23 23S 21E	NENWSE23 23S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	SPRAGG G MICHAEL JR & TERESA M		
111-23-031-SP002	39-0000686	33-0042738, 36-0013348	TENNECO ARIZONA PROPERTY CORPORATION	SP	12/31/1949	SURFACE WATER	SESESW23 23S 21E	SESESW23 23S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	GARCIA JAMES J		
111-23-031-SP003	39-0000685	36-0013347, 38-0013372, 3R-0001575	TENNECO ARIZONA PROPERTY CORPORATION	SP	12/31/1938	SURFACE WATER	SENWSW26 23S 21E	SENWSW26 23S 21E	NOT TO EXCEED 13.2 AF WITH CONTINUOUS FILL	TANNENBAUM DAVID & THERESE M FOSTER		
111-23-038-SP001	39-0000746	38-0015202	GREGOVICH, JAMES HARDIE	SP	1/1/1960	SURFACE WATER	SWNESW07 23S 21E	SWNESW07 23S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	FOOTHILLS RANCH HOMEOWNERS ASSOCIATION		
111-23-055-SP001-WL	39-0013474	38-0094643	ARIZONA STATE LAND DEPARTMENT	SP	5/8/1973	SURFACE WATER	SEWNWE36 23S 21E	SEWNWE36 23S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	ARIZONA STATE LAND DEPARTMENT	ROTWEILLER, PAUL W	
111-24-001-SP002-WL	39-0000960, 39-0013480	38-0094646, 3R-0001659	ARIZONA STATE LAND DEPARTMENT	SP	1/19/1955	SURFACE WATER	SWSENW14 24S 23E	SWSENW14 24S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	ARIZONA STATE LAND DEPARTMENT	HARRIS, DAVID A	PRIORITY DATE FROM AERIAL PHOTO.
111-24-001-SP004-WL	39-0007921	38-0088295	ARIZONA STATE LAND DEPARTMENT	SP	12/31/1954	SURFACE WATER	NENWNW16 24S 23E	NENWNW16 24S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	ARIZONA STATE LAND DEPARTMENT	HARRIS, DAVID A	
111-24-001-SP005-WL	39-0000961, 39-0007922	38-0088277, 3R-0001660	ARIZONA STATE LAND DEPARTMENT	SP	8/19/1957	SURFACE WATER	NENESE18 24S 23E	NENESE18 24S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	ARIZONA STATE LAND DEPARTMENT	HARRIS, DAVID A	
111-24-001-SP006-WL	39-0013478	38-0094645	ARIZONA STATE LAND DEPARTMENT	SP	12/31/1959	SURFACE WATER	SWSWSW08 24S 23E	SWSESW08 24S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	ARIZONA STATE LAND DEPARTMENT	HARRIS, DAVID A	
111-24-001-SP007-WL	39-0013477	38-0094648	ARIZONA STATE LAND DEPARTMENT	SP	12/31/1959	SURFACE WATER	SWNWSW08 24S 23E	SWNWSW08 24S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	ARIZONA STATE LAND DEPARTMENT	HARRIS, DAVID A	
111-24-002-SP001-WL	39-0002259, 39-0007906	36-0010731, 38-0010730, 38-0088175	ARIZONA STATE LAND DEPARTMENT	SP	7/31/1963	SURFACE WATER	NESESE24 23S 22E	NESESE24 23S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	ARIZONA STATE LAND DEPARTMENT	FIRST INTERSTATE BANK OF ARIZONA	
111-24-003-SP001-WL	39-0001637, 39-0007923	38-0065437.0001, 38-0088276	ARIZONA STATE LAND DEPARTMENT	SP	8/31/1945	SURFACE WATER	NESWSW03 24S 23E	NESWSW03 24S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	ARIZONA STATE LAND DEPARTMENT	LADD, JOHN H & MARIE W.	
111-24-003-SP002-WL	39-0001637, 39-0007923	38-0065437.0001, 38-0088276	ARIZONA STATE LAND DEPARTMENT	SP	8/31/1945	SURFACE WATER	NESWSW03 24S 23E	NESWSW03 24S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	ARIZONA STATE LAND DEPARTMENT	LADD, JOHN H & MARIE W.	
111-24-003-SP003	39-0014377	33-0090216	ARIZONA STATE LAND DEPARTMENT	SP	7/31/1986	SURFACE WATER	SWNWSW02 24S 23E	SENESE03 24S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	ARIZONA STATE LAND DEPARTMENT	LADD, JOHN H & MARIE W.	
111-24-004-SP001-WL	39-0002182, 39-0007915	38-0013333, 38-0088193	ARIZONA STATE LAND DEPARTMENT	SP	7/15/1945	SURFACE WATER	SWNWNWE25 23S 23E	SWNWNWE25 23S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	ARIZONA STATE LAND DEPARTMENT	POWER, MICHAEL W.	
111-24-005-SP001-WL	39-0002183, 39-0013482	38-0012075, 38-0094647	ARIZONA STATE LAND DEPARTMENT	SP	7/15/1959	SURFACE WATER	SWSWSW08 24S 24E	SWSWSW08 24S 24E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	ARIZONA STATE LAND DEPARTMENT	MILLER, CHARLES G	
111-24-009-SP001-WL	39-0002102, 39-0007909	38-0062821, 38-0088174	ARIZONA STATE LAND DEPARTMENT	SP	7/31/1955	SURFACE WATER	SENNWN17 23S 23E	NESWNW17 23S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	ARIZONA STATE LAND DEPARTMENT	POWER, MICHAEL W.	
111-24-009-SP002-WL	39-0002107, 39-0007910	38-0060973, 38-0088173	ARIZONA STATE LAND DEPARTMENT	SP	7/31/1955	SURFACE WATER	SESESW17 23S 23E	SESESW17 23S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	ARIZONA STATE LAND DEPARTMENT	POWER, MICHAEL W.	
111-24-009-SP004-WL	39-0013476	38-0094644	ARIZONA STATE LAND DEPARTMENT	SP	12/31/1955	SURFACE WATER	NENESW32 23S 23E	NWNWSE32 23S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	ARIZONA STATE LAND DEPARTMENT	POWER, MICHAEL W.	
111-24-010-SP002-WL	39-0002103, 39-0007912	38-0012173, 38-0088192	ARIZONA STATE LAND DEPARTMENT	SP	7/4/1955	SURFACE WATER	NESWSW11 23S 22E	SENWSW11 23S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	ARIZONA STATE LAND DEPARTMENT	POWER, MICHAEL W.	
111-24-010-SP003-WL	39-0002112	38-0012172	ARIZONA STATE LAND DEPARTMENT	SP	7/4/1955	SURFACE WATER	SESESW11 23S 22E	SWSESW11 23S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	ARIZONA STATE LAND DEPARTMENT	POWER, MICHAEL W.	
111-24-010-SP004-WL	39-0002104, 39-0007911	38-0012175, 38-0088162	ARIZONA STATE LAND DEPARTMENT	SP	7/4/1955	SURFACE WATER	SESWNE07 23S 23E	SESWNE07 23S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	ARIZONA STATE LAND DEPARTMENT	POWER, MICHAEL W.	
111-24-020-SP001	39-0002106	38-0019259, 3R-0001451	BLM - SAFFORD DISTRICT	SP	3/27/1957	SURFACE WATER	SESESW24 23S 23E	SESESW24 23S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	BLM - SAFFORD DISTRICT	POWER, MICHAEL W.	
111-24-039-SP003	39-0000950	33-0031991	PIONEER TRUST COMPANY OF ARIZONA	SP	1/19/1955	SURFACE WATER	SWNWNW15 24S 22E	SWNWNW15 24S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	SAN JOSE RANCH INC		PRIORITY DATE FROM AERIAL PHOTO.
111-24-039-SP004	39-0000951	33-0031992	PIONEER TRUST COMPANY OF ARIZONA	SP	1/19/1955	SURFACE WATER	SWNWNW15 24S 22E	SWNWNW15 24S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	SAN JOSE RANCH INC		PRIORITY DATE FROM AERIAL PHOTO.
111-24-039-SP005	39-0000952	33-0031993	PIONEER TRUST COMPANY OF ARIZONA	SP	1/19/1955	SURFACE WATER	SENNWN15 24S 22E	SENNWN15 24S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	SAN JOSE RANCH INC		PRIORITY DATE FROM AERIAL PHOTO.



Table 2-3. Assessment of Potentially *De Minimis* Stockpond PWRs

PROPOSED WATER RIGHT NUMBER	STATEMENT(S) OF CLAIMANT(S)	BASIS OF WATER RIGHT	OWNERSHIP (WFR LANDOWNER)	TYPE OF USE	PRIORITY DATE	SOURCE OF WATER	PLACE OF USE HSR	PLACE OF USE GIS	QUANTITY	CURRENT LAND OWNERSHIP	SAN PEDRO HSR LESSEE	COMMENTS
<i>Potential De Minimis Water Rights</i>												
111-24-039-SP011	39-0000954	33-0031986	PIONEER TRUST COMPANY OF ARIZONA	SP	12/31/1973	SURFACE WATER	SENWSW16 24S 22E	SENWSW16 24S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	SAN JOSE RANCH INC		PRIORITY DATE FROM AERIAL PHOTO.
111-24-039-SP013	39-0000958	33-0031985	PIONEER TRUST COMPANY OF ARIZONA	SP	12/31/1973	SURFACE WATER	NENENW21 24S 22E	NENENW21 24S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	SAN JOSE RANCH INC		PRIORITY DATE FROM AERIAL PHOTO.
111-24-042-SP001-WL	39-0002520	38-0019796	LADD, JOHN H. & MARIE W.	SP	12/31/1914	SURFACE WATER	SWNWSE06 24S 23E	NWNWSE06 24S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	LADD MARIE W CREDIT TRUST & LADD JOHN H SURVIVORS TRUST		
111-24-042-SP011-WL	39-0002520	38-0019800	LADD, JOHN H. & MARIE W.	SP	12/31/1965	SURFACE WATER	NWSWNE08 24S 23E	NWSWNE08 24S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	LADD MARIE W CREDIT TRUST & LADD JOHN H SURVIVORS TRUST		
111-24-042-SP012-WL	39-0002520	38-0019799	LADD, JOHN H. & MARIE W.	SP	12/31/1973	SURFACE WATER	SEENENW08 24S 23E	SEENENW08 24S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	LADD MARIE W CREDIT TRUST & LADD JOHN H SURVIVORS TRUST		
111-24-042-SP014-WL	39-0002520	38-0019798	LADD, JOHN H. & MARIE W.	SP	12/31/1974	SURFACE WATER	SWNWNW08 24S 23E	SWNWNW08 24S 23E	NOT TO EXCEED 4.4 AF WITH CONTINUOUS FILL	LADD MARIE W CREDIT TRUST & LADD JOHN H SURVIVORS TRUST		
111-24-042-SP015-WL	39-0002520	38-0019801	LADD, JOHN H. & MARIE W.	SP	12/31/1965	SURFACE WATER	NENWSE08 24S 23E	NENWSE08 24S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	LADD MARIE W CREDIT TRUST & LADD JOHN H SURVIVORS TRUST		
111-24-042-SP016-WL	39-0002520	38-0019794	LADD, JOHN H. & MARIE W.	SP	12/31/1944	SURFACE WATER	SENEENE09 24S 23E	NENENE09 24S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	LADD MARIE W CREDIT TRUST & LADD JOHN H SURVIVORS TRUST		
111-24-042-SP017-WL	39-0002520	38-0019803	LADD, JOHN H. & MARIE W.	SP	12/31/1973	SURFACE WATER	NWNESE09 24S 23E	NWNESE09 24S 23E	NOT TO EXCEED 4.5 AF WITH CONTINUOUS FILL	LADD MARIE W CREDIT TRUST & LADD JOHN H SURVIVORS TRUST		PRIORITY DATE FROM AERIAL PHOTO.
111-24-042-SP018-WL	39-0002520	38-0019788	LADD, JOHN H. & MARIE W.	SP	1/19/1955	SURFACE WATER	SESWNE10 24S 23E	SESWNE10 24S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	LADD MARIE W CREDIT TRUST & LADD JOHN H SURVIVORS TRUST		PRIORITY DATE FROM AERIAL PHOTO.
111-24-042-SP019-WL	39-0002520	38-0019790	LADD, JOHN H. & MARIE W.	SP	12/31/1965	SURFACE WATER	SESWNE10 24S 23E	SESWNE10 24S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	LADD MARIE W CREDIT TRUST & LADD JOHN H SURVIVORS TRUST		
111-24-042-SP023-WL	39-0002520	38-0019786	LADD, JOHN H. & MARIE W.	SP	12/31/1978	SURFACE WATER	SWSWSE10 24S 23E	SWSWSE10 24S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	LADD MARIE W CREDIT TRUST & LADD JOHN H SURVIVORS TRUST		
111-24-042-SP024-WL	39-0002520	38-0019791	LADD, JOHN H. & MARIE W.	SP	12/31/1952	SURFACE WATER	SESESE10 24S 23E	SESESE10 24S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	LADD MARIE W CREDIT TRUST & LADD JOHN H SURVIVORS TRUST		
111-24-042-SP035-WL	39-0002520	38-0019792	LADD, JOHN H. & MARIE W.	SP	12/31/1965	SURFACE WATER	NWNWNW14 24S 23E	NENWNW14 24S 23E	NOT TO EXCEED 4.1 AF WITH CONTINUOUS FILL	LADD MARIE W CREDIT TRUST & LADD JOHN H SURVIVORS TRUST		
111-24-042-SP036-WL	39-0002520	38-0019785	LADD, JOHN H. & MARIE W.	SP	12/31/1965	SURFACE WATER	NWNESE14 24S 23E	NWNESE14 24S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	LADD JOHN W & JO BETH		
111-24-042-SP037-WL	39-0002520	38-0019795	LADD, JOHN H. & MARIE W.	SP	6/7/1984	SURFACE WATER	SENESE14 24S 23E	SENESE14 24S 23E	NOT TO EXCEED 5.4 AF WITH CONTINUOUS FILL	LADD JOHN W & JO BETH		PRIORITY DATE FROM AERIAL PHOTO.
111-24-043-SP001	39-0002190	38-0012076	MILLER, CHARLES G & CHARLES R	SP	7/15/1954	SURFACE WATER	SWSWSE01 24S 23E	SWSWSE01 24S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	MILLER CHARLES G REVOCABLE LIVING TRUST & MILLER CHARLES G		
111-24-043-SP002	39-0002189	38-0012080	MILLER, CHARLES G & CHARLES R	SP	7/10/1977	SURFACE WATER	SWNESE16 24S 24E	SWNESE16 24S 24E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	MILLER CHARLES G		
111-24-044-SP001	39-0005734	38-0084922	HANSFORD, CHARLENE DEE	SP	5/26/1972	SURFACE WATER	SWSWNW06 23S 23E	SWSWNW06 23S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	HANSFORD CHARLENE DEE		PRIORITY DATE FROM AERIAL PHOTO.
111-24-056-SP001	39-0001636	38-0065436	PRINCE, LOUIS, ET AL	SP	7/30/1967	SURFACE WATER	SWNWSE33 23S 23E	NWNWSE33 23S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	SAN JOSE RANCH INC		
111-24-057-SP001	39-0002184	38-0013332	MONGINI & SELNA CHILDRENS	SP	7/15/1935	SURFACE WATER	NWNESE36 23S 23E	NWNESE36 23S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	MONGINI & SELNA CHILDREN S IRR LIV TR		
111-24-062-SP001-WL	39-0003438	38-0012081	ROZZANO, MARY E & WEED, PEGGY A	SP	12/31/1940	SURFACE WATER	SWSWNW32 23S 24E	SWNWSW32 23S 24E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	ROZZANO MARY E REVOCABLE TRUST		
111-24-CBD-001-SP001	39-0005944	38-0013325	DUNN, AVIS E & LOPER, JOEL E.	SP	1/19/1955	SURFACE WATER	NESWNE35 23S 22E	NESWNE35 23S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	MYERS WILLIAM J & DELORA F		PRIORITY DATE FROM AERIAL PHOTO.
<i>Potential No Water Right Awarded</i>												
111-23-004-SP007	NO WATER RIGHT AWARDED	38-0088131	US FOREST SERVICE - CORONADO	SP	Not Evaluated	SURFACE WATER	NWSESW16 24S 20E	SWSWSE16 24S 20E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
111-23-006-SP002	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	LONE MOUNTAIN RANCH, INC.	SP	Not Evaluated	SURFACE WATER	SWNWNW11 24S 19E	SWSWNE23 24S 19E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	IROQUOIS LLC		



**Table 2-3. Assessment of Potentially *De Minimis* Stockpond PWRs**

PROPOSED WATER RIGHT NUMBER	STATEMENT(S) OF CLAIMANT(S)	BASIS OF WATER RIGHT	OWNERSHIP (WFR LANDOWNER)	TYPE OF USE	PRIORITY DATE	SOURCE OF WATER	PLACE OF USE HSR	PLACE OF USE GIS	QUANTITY	CURRENT LAND OWNERSHIP	SAN PEDRO HSR LESSEE	COMMENTS
<b>Potential No Water Right Awarded</b>												
111-23-006-SP003	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	LONE MOUNTAIN RANCH, INC.	SP	Not Evaluated	SURFACE WATER	NESESW11 24S 19E	NESESW11 24S 19E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	IROQUOIS LLC		
111-23-013-SP001	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	KIEFER, PAUL E.	SP	Not Evaluated	SURFACE WATER	NWNESW02 23S 20E	NWNESW02 23S 20E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	HERRIN RANDON R & KATHRYN (4)		
111-23-017-SP001	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	CRACCHIOLO, DAN	SP	Not Evaluated	SURFACE WATER	NWNESW12 24S 21E	NWNESW12 24S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	HELMS MARTHA R & HELMS HENRY W JR		
111-23-018-SP001	39-0001168	NO WATER RIGHT AWARDED	BROWN, GEORGE T.	SP	Not Evaluated	SURFACE WATER	NESWSE15 24S 21E	NWSWSE15 24S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	G E BROWN RANCH LLC		
111-23-018-SP002	39-0001169	NO WATER RIGHT AWARDED	BROWN, GEORGE T.	SP	Not Evaluated	SURFACE WATER	SEENW15 24S 21E	SEENW15 24S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	G E BROWN RANCH LLC		
111-23-018-SP003	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	BROWN, GEORGE T.	SP	Not Evaluated	SURFACE WATER	SESENE15 24S 21E	NWNESE15 24S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	G E BROWN RANCH LLC		
111-23-018-SP004	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	BROWN, GEORGE T.	SP	Not Evaluated	SURFACE WATER	SESENE15 24S 21E	NENESE15 24S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	G E BROWN RANCH LLC		
111-23-018-SP005	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	BROWN, GEORGE T.	SP	Not Evaluated	SURFACE WATER	NWSESE15 24S 21E	NWSESE15 24S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	G E BROWN RANCH LLC		
111-23-019-SP006	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	CLINTON, JOE A.	SP	Not Evaluated	SURFACE WATER	SENWSW32 23S 22E	SENWSW32 23S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	COCHISE COUNTY		
111-23-019-SP007	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	CLINTON, JOE A.	SP	Not Evaluated	SURFACE WATER	NWSWSE32 23S 22E	NWSWSE32 23S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	COCHISE COUNTY		
111-23-019-SP008	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	CLINTON, JOE A.	SP	Not Evaluated	SURFACE WATER	SWSENW07 24S 22E	SWSENW07 24S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	SYLVESTER FAMILY LIV TRUST		
111-23-031-SP004	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	TENNECO ARIZONA PROPERTY CORPORATION	SP	Not Evaluated	SURFACE WATER	SENWNW19 23S 22E	SENWNW19 23S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	ALLANSON MICHIO		
111-23-043-SP001	39-0000444	NO WATER RIGHT AWARDED	HELLER FINANCIAL, INC.	SP	Not Evaluated	SURFACE WATER	NWNENW33 23S 21E	NENENW33 23S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	PIONEER TITLE AGENCY INC TR # 321365		
111-23-043-SP002	39-0000444	NO WATER RIGHT AWARDED	HELLER FINANCIAL, INC.	SP	Not Evaluated	SURFACE WATER	NWNWSW04 24S 21E	NWNWSW04 24S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	PRESERVATION TRUST		
111-23-043-SP003	39-0000444	NO WATER RIGHT AWARDED	HELLER FINANCIAL, INC.	SP	Not Evaluated	SURFACE WATER	SWSWSE04 24S 21E	SWSWSE04 24S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	PRESERVATION TRUST		
111-23-043-SP004	39-0000444	NO WATER RIGHT AWARDED	HELLER FINANCIAL, INC.	SP	Not Evaluated	SURFACE WATER	NWNESE09 24S 21E	NWNESE09 24S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	CHOUINARD GREGORY A & CATHERINE M		
111-23-043-SP005	39-0000444	NO WATER RIGHT AWARDED	HELLER FINANCIAL, INC.	SP	Not Evaluated	SURFACE WATER	SENWSE09 24S 21E	SENWSE09 24S 21E	NOT TO EXCEED 11.2 AF WITH CONTINUOUS FILL	CHOUINARD GREGORY A & CATHERINE M		
111-23-043-SP006	39-0000444	NO WATER RIGHT AWARDED	HELLER FINANCIAL, INC.	SP	Not Evaluated	SURFACE WATER	NESENW10 24S 21E	NESENW10 24S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	FINN FAM REV TR		
111-23-043-SP007	39-0000444	NO WATER RIGHT AWARDED	HELLER FINANCIAL, INC.	SP	Not Evaluated	SURFACE WATER	NWSWSW11 24S 21E	NWSWSW11 24S 21E	NOT TO EXCEED 4.5 AF WITH CONTINUOUS FILL	CHAMBERS HARRY V & BISCHOFF JANE TRUST		
111-23-043-SP008	39-0000444	NO WATER RIGHT AWARDED	HELLER FINANCIAL, INC.	SP	Not Evaluated	SURFACE WATER	NENENW11 24S 21E	NENENW11 24S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	STROM ROY M & JOAN T LIVING TRUST		
111-23-043-SP009	39-0000444	NO WATER RIGHT AWARDED	HELLER FINANCIAL, INC.	SP	Not Evaluated	SURFACE WATER	NENENW11 24S 21E	NENENW11 24S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	STROM ROY M & JOAN T LIVING TRUST		
111-23-043-SP010	39-0000444	NO WATER RIGHT AWARDED	HELLER FINANCIAL, INC.	SP	Not Evaluated	SURFACE WATER	NWNWNE11 24S 21E	NWNWNE11 24S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	STROM ROY M & JOAN T LIVING TRUST		
111-23-043-SP011	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	HELLER FINANCIAL, INC.	SP	Not Evaluated	SURFACE WATER	NENWSE03 24S 21E	NENWSE03 24S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	STROM ROY M & JOAN T LIVING TRUST		
111-23-046-SP001	39-0005360	NO WATER RIGHT AWARDED	DINWIDDIE, EDGAR, ETUX.	SP	Not Evaluated	SURFACE WATER	NESWSE10 23S 21E	NESWSE10 23S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	DINWIDDIE LORRAINE REVOCABLE TRUST		
111-23-046-SP002	39-0005361	NO WATER RIGHT AWARDED	DINWIDDIE, EDGAR, ETUX.	SP	Not Evaluated	SURFACE WATER	SWNWSE10 23S 21E	NWNWSE10 23S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	DINWIDDIE LORRAINE REVOCABLE TRUST		
111-23-046-SP003	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	DINWIDDIE, EDGAR, ETUX.	SP	Not Evaluated	SURFACE WATER	NWSESW09 23S 21E	NWSESW09 23S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	DINWIDDIE LORRAINE REVOCABLE TRUST		
111-23-047-SP001	39-0003697	NO WATER RIGHT AWARDED	TUNSTALL, OBED L & TUNSTALL, PETER B.	SP	Not Evaluated	SURFACE WATER	NENENE06 23S 21E	NENENE06 23S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	TUNSTALL PETER B		
111-23-052-SP001	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	DON STEWART EVANGL. ASSOC	SP	Not Evaluated	SURFACE WATER	SWNWSE01 24S 21E	SWNWSE01 24S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	FOXTAIL DOWN TRUST		
111-23-052-SP002	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	DON STEWART EVANGL. ASSOC	SP	Not Evaluated	SURFACE WATER	NENESW01 24S 21E	NENESW01 24S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	FOXTAIL DOWN TRUST		
111-23-052-SP003	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	DON STEWART EVANGL. ASSOC	SP	Not Evaluated	SURFACE WATER	SWNWNE02 24S 21E	SWNWNE02 24S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	PARKS JUDITH ANN		
111-23-052-SP004	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	DON STEWART EVANGL. ASSOC	SP	Not Evaluated	SURFACE WATER	SENWNE02 24S 21E	SENWNE02 24S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	TUNSTALL PETER B		
111-23-052-SP005	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	DON STEWART EVANGL. ASSOC	SP	Not Evaluated	SURFACE WATER	SWSWNW06 24S 22E	NWNWSW06 24S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	SCELSO JOSEPH J JR & PATRICIA M		
111-23-053-SP001	39-0000444	NO WATER RIGHT AWARDED	WALTER HELLER WESTERN INC	SP	Not Evaluated	SURFACE WATER	NENENW14 24S 21E	NENENW14 24S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	FIVE PEAKS RANCH LLC		
111-23-054-SP001	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	PIONEER TRUST COMPANY OF ARIZONA	SP	Not Evaluated	SURFACE WATER	NWSWNE14 24S 21E	NWSWNE14 24S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	NORMANDEAU ANDREW & CYNTHIA DAY-NORMANDE		
111-23-054-SP002	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	PIONEER TRUST COMPANY OF ARIZONA	SP	Not Evaluated	SURFACE WATER	NWNWSE14 24S 21E	NWNWSE14 24S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	MURPHEY ROBERT M & OLIVE P		



**Table 2-3. Assessment of Potentially *De Minimis* Stockpond PWRs**

PROPOSED WATER RIGHT NUMBER	STATEMENT(S) OF CLAIMANT(S)	BASIS OF WATER RIGHT	OWNERSHIP (WFR LANDOWNER)	TYPE OF USE	PRIORITY DATE	SOURCE OF WATER	PLACE OF USE HSR	PLACE OF USE GIS	QUANTITY	CURRENT LAND OWNERSHIP	SAN PEDRO HSR LESSEE	COMMENTS
<b><i>Potential No Water Right Awarded</i></b>												
111-23-054-SP003	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	PIONEER TRUST COMPANY OF ARIZONA	SP	Not Evaluated	SURFACE WATER	NWSENE13 24S 21E	NWSENE13 24S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	VEAL FAM TR		
111-23-057-SP001	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	DORLAND, RICHARD W.	SP	Not Evaluated	SURFACE WATER	SENENW11 23S 21E	SENENW11 23S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	DORLAND FAMILY TRUST		
111-23-059-SP001	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	CALLAHAN, PATRICK & WALTZ, GLEN & DIANN F	SP	Not Evaluated	SURFACE WATER	NESENW12 24S 21E	NESENW12 24S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	HELMS HENRY & MARTHA		
111-23-060-SP001	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	CRACCHIOLO, DAN	SP	Not Evaluated	SURFACE WATER	NWNWSW12 24S 21E	NWNWSW12 24S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	HELMS HENRY W SR & MARTHA R		
111-23-061-SP001	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	KOERNER, FREDERICK P.	SP	Not Evaluated	SURFACE WATER	SWNWNW12 24S 21E	SWNWNW12 24S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	GALDI JOSEPH C II		
111-24-009-SP003	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	ARIZONA STATE LAND DEPARTMENT	SP	Not Evaluated	SURFACE WATER	SWNWNW17 23S 23E	SWNWNW17 23S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	ARIZONA STATE LAND DEPARTMENT	POWER, MICHAEL W.	
111-24-009-SP005	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	ARIZONA STATE LAND DEPARTMENT	SP	Not Evaluated	SURFACE WATER	SENWNW19 23S 23E	NESWNW17 23S 23E	NOT TO EXCEED 6.4 AF WITH CONTINUOUS FILL	ARIZONA STATE LAND DEPARTMENT	POWER, MICHAEL W.	
111-24-026-SP001	39-0002463	NO WATER RIGHT AWARDED	FRANKLE, LAWRENCE & FRANKLE, DAVID	SP	Not Evaluated	SURFACE WATER	NWSWNW06 23S 24E	NWSWNW06 23S 24E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	SUSNOW CAROLYNN G		
111-24-033-SP001	39-0010997	NO WATER RIGHT AWARDED	POWER, MICHAEL W.	SP	Not Evaluated	SURFACE WATER	NWNWNE15 23S 23E	NWNWNE15 23S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	POWER MICHAEL W & BILLIE JOAN		
111-24-038-SP001	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	CUNNINGHAM, KENNETH L.	SP	Not Evaluated	SURFACE WATER	SWSWNE01 23S 22E	SWSWNE01 23S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	SHRINERS HOSPITAL FOR CHILDREN		
111-24-039-SP001	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	PIONEER TRUST COMPANY OF ARIZONA	SP	Not Evaluated	SURFACE WATER	SWSWSW12 24S 22E	SWSWSW12 24S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	LADD JOHN W & JO BETH S		
111-24-039-SP006	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	PIONEER TRUST COMPANY OF ARIZONA	SP	Not Evaluated	SURFACE WATER	SENWNW15 24S 22E	SENWNW15 24S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	SAN JOSE RANCH INC		
111-24-039-SP007	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	PIONEER TRUST COMPANY OF ARIZONA	SP	Not Evaluated	SURFACE WATER	SWNWNW15 24S 22E	SENWNW15 24S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	SAN JOSE RANCH INC		
111-24-039-SP008	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	PIONEER TRUST COMPANY OF ARIZONA	SP	Not Evaluated	SURFACE WATER	NWSENW15 24S 22E	NWSENW15 24S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	SAN JOSE RANCH INC		
111-24-039-SP010	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	PIONEER TRUST COMPANY OF ARIZONA	SP	Not Evaluated	SURFACE WATER	NWNWSW16 24S 22E	NWNWSW16 24S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	SAN JOSE RANCH INC		
111-24-039-SP012	NO WATER RIGHT AWARDED	33-0031984	PIONEER TRUST COMPANY OF ARIZONA	SP	Not Evaluated	SURFACE WATER	NWSESW16 24S 22E	SWNESW16 24S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	SAN JOSE RANCH INC		
111-24-039-SP014	39-0000953	NO WATER RIGHT AWARDED	PIONEER TRUST COMPANY OF ARIZONA	SP	Not Evaluated	SURFACE WATER	NWNWSW16 24S 22E	NWNWSW16 24S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	SAN JOSE RANCH INC		
111-24-042-SP002	NO WATER RIGHT AWARDED	38-0019797	LADD, JOHN H. & MARIE W.	SP	Not Evaluated	SURFACE WATER	NWNWNE07 24S 23E	SWSWSE06 24S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	LADD MARIE W CREDIT TRUST & LADD JOHN H SURVIVORS TRUST		
111-24-042-SP010	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	LADD, JOHN H. & MARIE W.	SP	Not Evaluated	SURFACE WATER	NWSWNE08 24S 23E	NWSWNE08 24S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	LADD MARIE W CREDIT TRUST & LADD JOHN H SURVIVORS TRUST		
111-24-042-SP022	39-0002520, 39-0013022	NO WATER RIGHT AWARDED	LADD, JOHN H. & MARIE W.	SP	Not Evaluated	SURFACE WATER	SWNWSE10 24S 23E	SWNWSE10 24S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	LADD MARIE W CREDIT TRUST & LADD JOHN H SURVIVORS TRUST		
111-24-042-SP038	NO WATER RIGHT AWARDED	38-0019802	LADD, JOHN H. & MARIE W.	SP	Not Evaluated	SURFACE WATER	NWNWNE09 24S 23E	NWNWNE09 24S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	LADD MARIE W CREDIT TRUST & LADD JOHN H SURVIVORS TRUST		
111-24-042-SP040	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	LADD, JOHN H. & MARIE W.	SP	Not Evaluated	SURFACE WATER	SENWSE09 24S 23E	SENWSE09 24S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	LADD MARIE W CREDIT TRUST & LADD JOHN H SURVIVORS TRUST		
111-24-042-SP041	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	LADD, JOHN H. & MARIE W.	SP	Not Evaluated	SURFACE WATER	SENE14 24S 23E	SWNE14 24S 23E	NOT TO EXCEED 6.6 AF WITH CONTINUOUS FILL	LADD JOHN W & JO BETH		
111-24-046-SP001	NO WATER RIGHT AWARDED	38-0095348	BARKER, DELMAR LEE	SP	Not Evaluated	SURFACE WATER	SWSWNW09 23S 23E	SWSWNW09 23S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	BARKER FAMILY REVOCABLE TRUST AGREEMENT & RICKEL DWIGHT GENE & LINDA ETAL		
111-24-049-SP001	39-0001957	NO WATER RIGHT AWARDED	WICK, ROBERT J.	SP	Not Evaluated	SURFACE WATER	SESWSE10 23S 23E	NESWSE10 23S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	WICK ROBERT J & AIDA E		
111-24-052-SP001	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	SAVAGE, ROBERT L ETAL	SP	Not Evaluated	SURFACE WATER	SWNESE20 23S 23E	SWNESE20 23S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	STUMP GERALD M & DEBRA J		
111-24-053-SP001	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	ROGERS, JOHN & JUANITA ANDERSON, MARY LOUISE	SP	Not Evaluated	SURFACE WATER	SESWNW23 23S 23E	SESWNW23 23S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	MAC SHIRLEY REV TRUST		
111-24-054-SP001	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	MAUL, RICHARD A.	SP	Not Evaluated	SURFACE WATER	NWNENE27 23S 23E	NENWNE27 23S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	PETERSON RICHARD MAUL & LANS (2)		
111-24-054-SP002	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	MAUL, RICHARD A.	SP	Not Evaluated	SURFACE WATER	SESWNW26 23S 23E	SESWNW26 23S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	PETERSON RICHARD MAUL & LANS (2)		
111-24-056-SP003	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	PRINCE, LOUIS, ET AL	SP	Not Evaluated	SURFACE WATER	SWNESE33 23S 23E	NWSESE33 23S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	SAN JOSE RANCH INC		
111-24-057-SP002	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	MONGINI & SELNA CHILDRENS	SP	Not Evaluated	SURFACE WATER	NENESE36 23S 23E	NENESE36 23S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	MONGINI & SELNA CHILDREN S IRR LIV TR		





Table 2-3. Assessment of Potentially *De Minimis* Stockpond PWRs

PROPOSED WATER RIGHT NUMBER	STATEMENT(S) OF CLAIMANT(S)	BASIS OF WATER RIGHT	OWNERSHIP (WFR LANDOWNER)	TYPE OF USE	PRIORITY DATE	SOURCE OF WATER	PLACE OF USE HSR	PLACE OF USE GIS	QUANTITY	CURRENT LAND OWNERSHIP	SAN PEDRO HSR LESSEE	COMMENTS
<b>Potential No Water Right Awarded</b>												
111-24-062-SP002	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	ROZZANO, MARY E & WEED, PEGGY A	SP	Not Evaluated	SURFACE WATER	SWNWSW32 23S 24E	SWNWSW32 23S 24E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	ROZZANO MARY E REVOCABLE TRUST		
111-24-062-SP003	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	ROZZANO, MARY E & WEED, PEGGY A	SP	Not Evaluated	SURFACE WATER	NWNWSW32 23S 24E	SWNWSW32 23S 24E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	ROZZANO MARY E REVOCABLE TRUST		
111-24-062-SP004	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	ROZZANO, MARY E & WEED, PEGGY A	SP	Not Evaluated	SURFACE WATER	NWNWSW32 23S 24E	NWNWSW32 23S 24E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	ROZZANO MARY E REVOCABLE TRUST		
111-24-062-SP005	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	ROZZANO, MARY E & WEED, PEGGY A	SP	Not Evaluated	SURFACE WATER	NWNWSW32 23S 24E	NWNWSW32 23S 24E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	ROZZANO MARY E REVOCABLE TRUST		
111-24-062-SP006	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	ROZZANO, MARY E & WEED, PEGGY A	SP	Not Evaluated	SURFACE WATER	NENWSW32 23S 24E	SESWNW32 23S 24E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	S J TIERRA LLC		
111-24-062-SP007	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	ROZZANO, MARY E & WEED, PEGGY A	SP	Not Evaluated	SURFACE WATER	NWNWSW32 23S 24E	NWNWSW32 23S 24E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	ROZZANO MARY E REVOCABLE TRUST		
111-24-062-SP008	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	ROZZANO, MARY E & WEED, PEGGY A	SP	Not Evaluated	SURFACE WATER	NWNWSW32 23S 24E	NWNWSW32 23S 24E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	ROZZANO MARY E REVOCABLE TRUST		
111-24-062-SP009	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	ROZZANO, MARY E & WEED, PEGGY A	SP	Not Evaluated	SURFACE WATER	SESWNW32 23S 24E	SESWNW32 23S 24E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	S J TIERRA LLC		
111-24-074-SP001	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	WEBSTER LIMITED, INC.	SP	Not Evaluated	SURFACE WATER	SESENW28 23S 23E	SESENW28 23S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	PETERSON LANS & RICHARD MAUL		
111-24-076-SP001	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	CRIDER, LINDA J.	SP	Not Evaluated	SURFACE WATER	NWSENW31 23S 24E	NESENW31 23S 24E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	COPPER LEAF LENDER LLC		
111-24-077-SP001	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	MERRYFIELD, BOYD L & HASMAN COMPANY	SP	Not Evaluated	SURFACE WATER	NWSESW31 23S 24E	NWSESW31 23S 24E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	SPECIALTY RESTAURANTS CORPORATION		
111-24-079-SP001	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	FOUDY FLYNN PROPERTIES	SP	Not Evaluated	SURFACE WATER	SWNENE31 23S 24E	SWNENE31 23S 24E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	COPPER LEAF LENDER LLC		
111-24-080-SP001	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	STEWART TITLE & TRUST	SP	Not Evaluated	SURFACE WATER	SESWSE35 23S 23E	SESWSE35 23S 23E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	SAN JOSE RANCH INC		
111-24-084-SP002	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	NIGHTINGALE, JAMES A.	SP	Not Evaluated	SURFACE WATER	NWSESE01 23S 22E	NWSESE01 23S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	NIGHTINGALE JULIA TRUST (2)		
111-24-CBC-006-SP001	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	DINWIDDIE, EDGAR, ETUX.	SP	Not Evaluated	SURFACE WATER	NESENW27 23S 22E	NESENW27 23S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	DINWIDDIE LORRAINE REV TRUST		
111-24-CBC-006-SP002	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	DINWIDDIE, EDGAR, ETUX.	SP	Not Evaluated	SURFACE WATER	SWNENW27 23S 22E	SWNENW27 23S 22E	NOT TO EXCEED 4.2 AF WITH CONTINUOUS FILL	DINWIDDIE LORRAINE REV TRUST		
<b>Non De Minimis Stockponds</b>												
111-23-006-SP001	39-0003735	33-0084369	LONE MOUNTAIN RANCH, INC.	SP	5/28/1980	SURFACE WATER	NWSWSE11 24S 19E	SWNWSSE11 24S 19E	16.1 AF - Not de minimis	IROQUOIS LLC		
111-22-009-SP008-WL	39-0003733, 39-0008354	36-0041689, <b>38-0014980</b>	US FOREST SERVICE - CORONADO	SP	12/31/1940	SURFACE WATER	NESESE09 24S 19E	SENESE09 24S 19E	17.5 AF - Not de minimis	US FOREST SERVICE - CORONADO	LONE MOUNTAIN RANCH, INC.	
<b>Other</b>												
<b>San Pedro I HSR Errata</b>												
111-22-010-SP002-WL	39-0008356	38-0018649	US FOREST SERVICE - CORONADO	SP		SURFACE WATER	NENENE08 24S 19E	NOT DETERMINABLE	NA	US FOREST SERVICE - CORONADO	BERCICH CATTLE COMPANY	SP NOT MAPPED IN HSR AND COULD NOT BE VERIFIED IN IMAGERY
<b>Coronado National Memorial</b>												
111-23-DCC-001-SP001	39-0004344	38-0064702	RICHARDS, RICHARD B.	SP	6/22/1977	SURFACE WATER	NWSWNE17 24S 21E	NWSENE17 24S 21E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	NATIONAL PARK SERVICE		
<b>San Pedro Riparian National Conservation Area (SPRNCA)</b>												
111-24-CBB-003-SP001	39-0003797, 39-0011030	NO WATER RIGHT AWARDED	MCDOWELL CRAIG MFG. CO.	SP	Not Evaluated	SURFACE WATER	NENENW22 23S 22E	NENENW22 23S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	BLM - SAFFORD DISTRICT		
111-24-CCB-011-SP001	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	BLM - SAFFORD DISTRICT	SP	Not Evaluated	SURFACE WATER	NESWNE17 24S 22E	NESWNE17 24S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	BLM - SAFFORD DISTRICT		
111-24-CCB-011-SP002	39-0000955	33-0031987	BLM - SAFFORD DISTRICT	SP	4/11/1975	SURFACE WATER	NENESE17 24S 22E	SWSENE17 24S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	BLM - SAFFORD DISTRICT		
111-24-CCB-011-SP003	39-0000956	33-0031988	BLM - SAFFORD DISTRICT	SP	4/11/1975	SURFACE WATER	SESENE17 24S 22E	SWSENE17 24S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	BLM - SAFFORD DISTRICT		
111-24-CCB-011-SP004	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	BLM - SAFFORD DISTRICT	SP	Not Evaluated	SURFACE WATER	SWNESW18 24S 22E	SWNESW18 24S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	BLM - SAFFORD DISTRICT		
111-24-CCB-011-SP005	NO WATER RIGHT AWARDED	NO WATER RIGHT AWARDED	BLM - SAFFORD DISTRICT	SP	Not Evaluated	SURFACE WATER	SWNESW18 24S 22E	SWNESW18 24S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	BLM - SAFFORD DISTRICT		
111-24-CCB-011-SP006	39-0000957	NO WATER RIGHT AWARDED	BLM - SAFFORD DISTRICT	SP	Not Evaluated	SURFACE WATER	SWSENE17 24S 22E	SWSENE17 24S 22E	NOT TO EXCEED 4 AF WITH CONTINUOUS FILL	BLM - SAFFORD DISTRICT		



Table 2-4. Potential *De Minimis* Domestic PWRs

PROPOSED WATER RIGHT NUMBER	STATEMENT(S) OF CLAIMANT(S)	BASIS OF WATER RIGHT	OWNERSHIP (WFR LANDOWNER)	TYPE OF USE	PRIORITY DATE	SOURCE OF WATER	PLACE OF USE HSR	PLACE OF USE GIS	QUANTITY	CURRENT LAND OWNERSHIP	SAN PEDRO HSR LESSEE	PRIORITY DATE SOURCE	COMMENTS
111-23-006-DM004	39-0003734, 39-0003740	WELL	LONE MOUNTAIN RANCH, INC.	DM	7/1/1955	NOT YET DETERMINED	NENWNE05 24S 20E	NENWNE05 24S 20E	NOT TO EXCEED 1 AF PER YEAR	US FOREST SERVICE - CORONADO		39-0003740	
111-23-007-DM004	39-0008064	10-0215034.1100, 36-0011155, 4A-0000866	US FOREST SERVICE - CORONADO	DM	9/27/1928	SURFACE WATER	NWSW14 23S 20E	NENWSW14 23S 20E	NOT TO EXCEED 1 AF PER YEAR	US FOREST SERVICE - CORONADO	MARCO, JOSEPH D.	39-0008064	
111-23-013-DM001	39-0006346, 39-0006348	10-0221188.1100	KIEFER, PAUL E.	DM	5/14/1912	NOT YET DETERMINED	NWNESW02 23S 20E	NWNESW02 23S 20E	NOT TO EXCEED 1 AF PER YEAR	CORENS MARGARET A (3)		10-0221188.1100	
111-23-013-DM002	39-0006347, 39-0006349	10-0221188.1100	KIEFER, PAUL E.	DM	5/14/1912	NOT YET DETERMINED	NWNWSW01 23S 20E	NWNWSW01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	AP LENDERS LLC		10-0221188.1100	
111-23-022-DM001	39-0003610, 39-0010852	WELL	BAUMKIRCHNER, EVERETT M.	DM	5/18/1980	NOT YET DETERMINED	NENWSE30 23S 21E	NENWSE30 23S 21E	NOT TO EXCEED 1 AF PER YEAR	GARRETT MARY		39-0010852	
111-23-037-DM001	39-0006471, 39-0006473	36-0029442	NEWMAN, DON OLIVER	DM	6/13/1903	NOT YET DETERMINED	SESENE03 23S 20E	SESENE03 23S 20E	NOT TO EXCEED 1 AF PER YEAR	NEWMAN DON O & BETTY L REV LIVING TRUST		36-0029442	
111-23-043-DM002	39-0000444	WELL	HELLER FINANCIAL, INC.	DM	4/13/1985	NOT YET DETERMINED	NWNNE03 24S 21E	NWNNE03 24S 21E	NOT TO EXCEED 1 AF PER YEAR	STROM ROY M & JOAN T LIVING TRUST		1985 AERIAL PHOTO	
111-23-043-DM003	39-0000444	WELL	HELLER FINANCIAL, INC.	DM	4/13/1985	NOT YET DETERMINED	SENWNE11 24S 21E	SENWNE11 24S 21E	NOT TO EXCEED 1 AF PER YEAR	FIVE PEAKS RANCH LLC		1985 AERIAL PHOTO	
111-23-046-DM001	39-0005362, 39-0006399	10-0222114.1100, 10-0222114.1200	DINWIDDIE, EDGAR, ETUX. TUNSTALL, OBED L & TUNSTALL, PETER B.	DM	12/31/1963	NOT YET DETERMINED	SWSWSW10 23S 21E	SWSWSW10 23S 21E	NOT TO EXCEED 1 AF PER YEAR	DINWIDDIE LORRAINE REVOCABLE TRUST		39-0005362	
111-23-047-DM001	39-0003698	WELL		DM	1/1/1920	NOT YET DETERMINED	NENENE06 23S 21E	NENENE06 23S 21E	NOT TO EXCEED 1 AF PER YEAR	TUNSTALL PETER B		39-0003698	
111-23-AC-001-DM001	39-0001728	WELL	SLYTER, R.A. & JUDITH S.	DM	4/13/1985	NOT YET DETERMINED	NWNWNE05 23S 21E	NWNWNE05 23S 21E	NOT TO EXCEED 1 AF PER YEAR	MAYOR ANIBAL JOSEPH		1985 AERIAL PHOTO	
111-23-AC-006-DM001	39-0004375	WELL	DAWSON, ROBERT L.	DM	3/22/1978	NOT YET DETERMINED	NESENE10 23S 21E	NESENE10 23S 21E	NOT TO EXCEED 1 AF PER YEAR	DAWSON ROBERT & PHYLLISS		39-0004375	
111-23-AC-011-DM001	39-0011511	WELL	JESSUP, GREGORY M.	DM	11/1/1983	NOT YET DETERMINED	SESWSE04 23S 21E	NESWSE04 23S 21E	NOT TO EXCEED 1 AF PER YEAR	FAULCONER BRET R & TIA I		55-506278	
111-23-AC-012-DM001	39-0011621	WELL	TAYLOR, JACK R.	DM	2/15/1984	NOT YET DETERMINED	NWSWSE04 23S 21E	NWSWSE04 23S 21E	NOT TO EXCEED 1 AF PER YEAR	TAYLOR JACK R & APSORNSRI		55-506115	
111-23-AC-025-DM001	39-0000115	WELL	POPE, ROBERT	DM	4/13/1985	NOT YET DETERMINED	NWSESE08 23S 21E	NWSESE08 23S 21E	NOT TO EXCEED 1 AF PER YEAR	POPE ROBERT & JOAN HARDY-POPE		1985 AERIAL PHOTO	
111-23-AC-029-DM001	39-0002264, 39-0011270	WELL	STALLCUP, LAWRENCE O.	DM	4/1/1973	NOT YET DETERMINED	NENWNW08 23S 21E	NENWNW08 23S 21E	NOT TO EXCEED 1 AF PER YEAR	STALLCUP TRUST		39-002264	
111-23-AC-032-DM001	39-0003916	WELL	GRACIANO, ALFONSO G.	DM	6/14/1976	NOT YET DETERMINED	SENESEW05 23S 21E	SENESEW05 23S 21E	NOT TO EXCEED 1 AF PER YEAR	UERKVITZ MICHAEL & NANETTE K		39-0003916	
111-23-AC-033-DM001	39-0006565	WELL	ROSS, ELMER W. & MARIE E.	DM	3/13/1972	NOT YET DETERMINED	SESESE08 23S 21E	SESESE08 23S 21E	NOT TO EXCEED 1 AF PER YEAR	WHITCOMB KENNETH F & ELIZABETH A		55-640780	
111-23-AC-034-DM001	39-0006038, 39-0010906	WELL	FRAIZE, GORDON M.	DM	6/30/1980	NOT YET DETERMINED	SWSENW08 23S 21E	SWSENW08 23S 21E	NOT TO EXCEED 1 AF PER YEAR	FRAIZE FAMILY REVOCABLE TRUST		39-0006038	
111-23-AC-035-DM001	39-0005729	WELL	CHABOT, GUY V & COTE, LINDA J	DM	2/28/1980	NOT YET DETERMINED	SENESE08 23S 21E	SENESE08 23S 21E	NOT TO EXCEED 1 AF PER YEAR	CHABOT GUY V & COTE LINDA J		39-0005729	
111-23-AC-036-DM001	39-0005605	WELL	COOPER, ORRIN KEYS	DM	3/19/1977	NOT YET DETERMINED	NESENE08 23S 21E	NESENE08 23S 21E	NOT TO EXCEED 1 AF PER YEAR	CONAT DAVID		39-0005605	
111-23-AC-037-DM001	39-0011351, 39-0012559	WELL	WEGE, HANS F. & HELEN	DM	11/30/1961	NOT YET DETERMINED	SWNWNW08 23S 21E	SWNWNW08 23S 21E	NOT TO EXCEED 1 AF PER YEAR	BALLOU NANCY L		55-641877	
111-23-AC-039-DM001	39-0002559	WELL	TAYLOR, RICHARD L.	DM	3/20/1972	NOT YET DETERMINED	NWNWSE08 23S 21E	NWNWSE08 23S 21E	NOT TO EXCEED 1 AF PER YEAR	WHITECOTTON STEVE A		39-0002559	
111-23-AC-041-DM001	39-0011982	WELL	JORDAN, JEREMY H.	DM	10/7/1980	NOT YET DETERMINED	SENWSE08 23S 21E	SENWSE08 23S 21E	NOT TO EXCEED 1 AF PER YEAR	JORDAN JEREMY H & JEAN T		39-0011982	
111-23-AC-043-DM001	39-0010994, 39-0012621	WELL	BALLARD, DENNIS & CYNTHIA	DM	12/31/1960	NOT YET DETERMINED	NWNWNW08 23S 21E	NWNWNW08 23S 21E	NOT TO EXCEED 1 AF PER YEAR	MC COY ARCH T & DOROTHY		39-0010994	
111-23-AC-047-DM001	39-0004341	WELL	FOUND, BRUCE R.	DM	4/15/1978	NOT YET DETERMINED	NWNSE08 23S 21E	NWNSE08 23S 21E	NOT TO EXCEED 1 AF PER YEAR	DUSENBERRY MATTHEW & SUSAN		39-0004341	
111-23-AC-048-DM001	39-0006358	WELL	SUTTER, GEORGE C	DM	6/15/1980	NOT YET DETERMINED	SENWNE08 23S 21E	SENWNE08 23S 21E	NOT TO EXCEED 1 AF PER YEAR	SUTTER GEORGE CHARLES & JEAN MARIE		39-0006358	
111-23-AC-049-DM001	39-0005730	WELL	NORGREN, KENNETH A.	DM	9/1/1961	NOT YET DETERMINED	NWSESW05 23S 21E	NWSESW05 23S 21E	NOT TO EXCEED 1 AF PER YEAR	NORGREN K H LIVING TRUST		39-0005730	
111-23-AC-053-DM001	39-0003398, 39-0012626	WELL	MACNEIL, FRANCES B.	DM	9/12/1978	NOT YET DETERMINED	SENEENE08 23S 21E	SENEENE08 23S 21E	NOT TO EXCEED 1 AF PER YEAR	OBERMUELLER RICK A & DEBORAH		39-0003398	
111-23-AC-053-DM002	39-0010993	WELL	MACNEIL, FRANCES B.	DM	11/19/1976	NOT YET DETERMINED	NWNNE08 23S 21E	NWNSE08 23S 21E	NOT TO EXCEED 1 AF PER YEAR	DICKERSON GERALD J		39-0010993	
111-23-AC-055-DM001	39-0004036	WELL	PURDY, MABEL M.	DM	3/20/1976	NOT YET DETERMINED	NENENE08 23S 21E, NENENE08 23S 21E	NENENE08 23S 21E	NOT TO EXCEED 1 AF PER YEAR	THOMAN JOHN CLINTON & KRISTINA MICHELLE		39-0004036	
111-23-AC-056-DM001	39-0004070	WELL	HERMANN, JAMES A. & ELLEN	DM	6/26/1976	NOT YET DETERMINED	NESWSW05 23S 21E	NESWSW05 23S 21E	NOT TO EXCEED 1 AF PER YEAR	SCHROEDER DOUGLAS E & JENNIFER J		39-0004070	
111-23-AC-063-DM001	39-0005381	WELL	NEAL, KENNETH E.	DM	7/12/1977	NOT YET DETERMINED	NESESE07 23S 21E	SESESE07 23S 21E	NOT TO EXCEED 1 AF PER YEAR	DICKAMORE JOHNSON JOHN J		39-0005381	
111-23-AC-065-DM001	39-0001925	WELL	BRADSHAW, EVA MOSON	DM	11/19/1960	NOT YET DETERMINED	SENWSW04 23S 21E	NENWSW04 23S 21E	NOT TO EXCEED 1 AF PER YEAR	BLACK THOMAS A & DOROTHY JEAN CHAMBERS/2		39-0001925	
111-23-AC-080-DM001	39-0010994, 39-0012621	WELL	BALLARD, DENNIS & CYNTHIA	DM	12/31/1960	NOT YET DETERMINED	NWNWNW08 23S 21E	NWNWNW08 23S 21E	NOT TO EXCEED 1 AF PER YEAR	MC COY ARCH T & DOROTHY		39-0010994	
111-23-AD-002-DM001	39-0002784	WELL	SMYTHE, EDGAR A & PARKER, RICHARD G.	DM	4/13/1985	NOT YET DETERMINED	SWSENW11 23S 21E	SWSENW11 23S 21E	NOT TO EXCEED 1 AF PER YEAR	STOWE RHONDA & JEFF		1985 AERIAL PHOTO	
111-23-AD-006-DM001	39-0003919	WELL	ESCARCEGA, JOSEPH A.	DM	6/18/1973	NOT YET DETERMINED	NESESE02 23S 21E	SESESE02 23S 21E	NOT TO EXCEED 1 AF PER YEAR	RAYBURN RICHARD J & LINDA D		39-0003919	



Table 2-4. Potential *De Minimis* Domestic PWRs

PROPOSED WATER RIGHT NUMBER	STATEMENT(S) OF CLAIMANT(S)	BASIS OF WATER RIGHT	OWNERSHIP (WFR LANDOWNER)	TYPE OF USE	PRIORITY DATE	SOURCE OF WATER	PLACE OF USE HSR	PLACE OF USE GIS	QUANTITY	CURRENT LAND OWNERSHIP	SAN PEDRO HSR LESSEE	PRIORITY DATE SOURCE	COMMENTS
111-23-AD-009-DM001	39-0004049	WELL	GRINDY, STANLEY J.	DM	6/9/1979	NOT YET DETERMINED	NWNESW02 23S 21E	NWSESW02 23S 21E	NOT TO EXCEED 1 AF PER YEAR	GRINDY CAROLE G		39-0004049	
111-23-AD-010-DM001	39-0004161	WELL	VALLEY NATIONAL BANK	DM	5/10/1973	NOT YET DETERMINED	NESESW02 23S 21E	NESESW02 23S 21E	NOT TO EXCEED 1 AF PER YEAR	DOBBERTIN EDWARD J JR		39-0004161	
111-23-AD-012-DM001	39-0004332	WELL	MYERS, VIRGINIA M.	DM	3/11/1973	NOT YET DETERMINED	SESENW11 23S 21E	SESENW11 23S 21E	NOT TO EXCEED 1 AF PER YEAR	KUTTNER LUDWIG G & BARBARA L REV TRUST		39-0004332	
111-23-AD-014-DM001	39-0005638	WELL	GASPARDO, JOHN & BRIGITTE	DM	8/10/1983	NOT YET DETERMINED	NESENW02 23S 21E	NESENW02 23S 21E	NOT TO EXCEED 1 AF PER YEAR	CARTER DENNIS G		55-506054	
111-23-AD-020-DM001	39-0006428	WELL	AARDVA AMERICA CO., INC.	DM	3/15/1977	NOT YET DETERMINED	SWNWN02 23S 22E	NWSWN02 23S 21E	NOT TO EXCEED 1 AF PER YEAR	ROSENBAUM RANDALL L		39-0006428	
111-23-AD-026-DM001	39-0006530	WELL	SWEET, OTHELLO G.	DM	5/31/1973	NOT YET DETERMINED	SESWSW02 23S 21E	SWSWSE02 23S 21E	NOT TO EXCEED 1 AF PER YEAR	RAYBURN RICHARD J & LINDA D		39-0006530	
111-23-AD-056-DM001	39-0011997	WELL	SCHMIDT, JUANITA L.	DM	7/27/1981	NOT YET DETERMINED	NENENE11 23S 21E	NENENE11 23S 21E	NOT TO EXCEED 1 AF PER YEAR	MURPHY MARGIE A		39-0011997	
111-23-AD-059-DM001	39-0005654	WELL	PEREZA, FELIX A.	DM	6/30/1978	NOT YET DETERMINED	SESENE11 23S 21E	SESENE11 23S 21E	NOT TO EXCEED 1 AF PER YEAR	MACPHAIL ALEXANDER		39-0005654	
111-23-AD-060-DM001	39-0003396	WELL	MCKEE, CHARLES F.	DM	5/15/1972	NOT YET DETERMINED	SENWSW11 23S 21E	SENWSW11 23S 21E	NOT TO EXCEED 1 AF PER YEAR	GREENOUGH GARY & JOAN LIVING TRUST		39-0003396	
111-23-AD-063-DM001	39-0005844	WELL	DUBE, RENE J.	DM	10/1/1975	NOT YET DETERMINED	NENESW11 23S 21E	NENESW11 23S 21E	NOT TO EXCEED 1 AF PER YEAR	DUBE RENE J & INGEBOG H		39-0005844	
111-23-AD-068-DM001	39-0003437	WELL	LABORDE, WALTER E.	DM	2/7/1979	NOT YET DETERMINED	SWSWSE11 23S 21E	SWSWSE11 23S 21E	NOT TO EXCEED 1 AF PER YEAR	DAY MICHAEL		39-0003437	
111-23-AD-070-DM001	39-0004593	WELL	GIANGREGORIO, GARY L	DM	1/15/1980	NOT YET DETERMINED	NENWSE11 23S 21E	NENWSE11 23S 21E	NOT TO EXCEED 1 AF PER YEAR	GIANGREGORIO LAURIE LIVING TRUST		39-0004593	
111-23-AD-071-DM001	39-0011989	WELL	WHITESSELL, JAMES R.	DM	5/7/1983	NOT YET DETERMINED	SENWSE11 23S 21E	SENWSE11 23S 21E	NOT TO EXCEED 1 AF PER YEAR	WHITESSELL JAMES R & ELIZABETH J		39-0011989	
111-23-AD-073-DM001	39-0001036	WELL	WHITE, DOUGLAS E.	DM	9/2/1978	NOT YET DETERMINED	SESWSW11 23S 21E	SESWSW11 23S 21E	NOT TO EXCEED 1 AF PER YEAR	DANIELS JOHN L JR & BONNIE L		55-629439	Duplicate WFR to 111-23-AD-64.
111-23-AD-085-DM001	39-0003101	WELL	NUCCI, DANIEL G.	DM	8/4/1975	NOT YET DETERMINED	NESESW12 23S 21E	NESESW12 23S 21E	NOT TO EXCEED 1 AF PER YEAR	STRICKLAND TIMOTHY M & SU-MAN P		39-0003101	
111-23-AD-089-DM001	39-0003428	WELL	MEYER, ALLAN A.	DM	6/30/1976	NOT YET DETERMINED	SESESE12 23S 21E	SESESE12 23S 21E	NOT TO EXCEED 1 AF PER YEAR	DINKEL EMIL L		39-0003428	
111-23-AD-092-DM001	39-0011772	WELL	BERMAN, PETER	DM	7/31/1980	NOT YET DETERMINED	NWNWSW07 23S 22E	NWNWSW07 23S 22E	NOT TO EXCEED 1 AF PER YEAR	EMCH DOUGLAS L		39-0011772	
111-23-AD-093-DM001	39-0011020	WELL	DESTEFANO, MARIA B	DM	12/22/1980	NOT YET DETERMINED	SWNWSW07 23S 22E	SWNWSW07 23S 22E	NOT TO EXCEED 1 AF PER YEAR	DESTEFANO ALLEN J JR TRUST		39-0011020	
111-23-AD-097-DM001	39-0003232	WELL	GORDAY, JAMES C.	DM	8/2/1978	NOT YET DETERMINED	SWSWSE07 23S 22E	SWSWSE07 23S 22E	NOT TO EXCEED 1 AF PER YEAR	GORDAY JAMES C & GLENNA J		39-0003232	
111-23-AD-098-DM001	39-0005731	WELL	RODDEY, MICHAEL E.	DM	9/30/1978	NOT YET DETERMINED	SWSWSE07 23S 22E	SWSWSE07 23S 22E	NOT TO EXCEED 1 AF PER YEAR	VLATTEN JUDITH A		39-0005731	
111-23-ADC-060-DM001	39-0012846	WELL	WEBB, GARY H. & NANCY R.	DM	6/30/1986	NOT YET DETERMINED	SWSWNW02 23S 21E	SWSWNW02 23S 21E	NOT TO EXCEED 1 AF PER YEAR	WEBB GARY & NANCY FAMILY TRUST		39-0012846	
111-23-BD-011-DM001	39-0004365	WELL	ELIKER, MARTHA C.	DM	12/31/1965	NOT YET DETERMINED	NWNWNW02 23S 20E	NWNWNW02 23S 20E	NOT TO EXCEED 1 AF PER YEAR	CLENNEY J A & KATRICIA O		39-0004365	
111-23-BD-017-DM001	39-0004342	WELL	SPARKS, HENRY M	DM	11/1/1976	NOT YET DETERMINED	SWSENE03 23S 20E	SWSENE03 23S 20E	NOT TO EXCEED 1 AF PER YEAR	NATURE CONSERVANCY THE		39-0004342	
111-23-BD-025-DM001	39-0011469	WELL	THOMAS, FRED M.	DM	4/1/1966	NOT YET DETERMINED	NWNENW03 23S 20E	NWNENW10 23S 20E	NOT TO EXCEED 1 AF PER YEAR	FAIRFIELD PATRICK S & PAMELA S		55-633014	
111-23-BD-035-DM001	39-0003072	WELL	SCHUTTNER, MARK D.	DM	6/27/1979	NOT YET DETERMINED	SWNENW12 23S 20E	NESENW12 23S 20E	NOT TO EXCEED 1 AF PER YEAR	SCHUTT NER MARK DOUGLAS & CINDE JUYNEMA REVOCABLE TRUST		39-0003072	
111-23-BD-040-DM001	39-0005900	WELL	KNAEBLE, GERALD L.	DM	7/9/1974	NOT YET DETERMINED	NESENE11 23S 20E	NESENE11 23S 20E	NOT TO EXCEED 1 AF PER YEAR	BOWSER ROBERT & MARY (2)		39-0005900	
111-23-BD-040-DM002	39-0010902	WELL	KNAEBLE, GERALD L.	DM	12/31/1973	NOT YET DETERMINED	SWSWSW11 23S 20E	SWSWSW11 23S 20E	NOT TO EXCEED 1 AF PER YEAR	SNAPP TRUST		39-0010902	
111-23-BD-042-DM001	39-0006659	WELL	RICHEY, THOMAS A.	DM	12/31/1964	NOT YET DETERMINED	NWSENE11 23S 20E	NWSENE11 23S 20E	NOT TO EXCEED 1 AF PER YEAR	JEQ FAMILY LLC		39-0006659	
111-23-BD-043-DM001	39-0005681	WELL	GANDERS, WILHEMINA L.	DM	12/31/1904	NOT YET DETERMINED	NWSWNE11 23S 20E	NESWNE11 23S 20E	NOT TO EXCEED 1 AF PER YEAR	GRAB CONRAD W & GLORIA J		39-0005681	
111-23-BD-044-DM001	39-0006354	WELL	HARJU, PATRICIA JEAN	DM	12/31/1954	NOT YET DETERMINED	NWSENE11 23S 20E	NWSENE11 23S 20E	NOT TO EXCEED 1 AF PER YEAR	HARJU PATRICIA J		39-0006354	
111-23-BD-045-DM001	39-0004053	WELL	HAYNES, HARVEY R.	DM	6/30/1963	NOT YET DETERMINED	SENWNNW12 23S 20E	NESWNNW12 23S 20E	NOT TO EXCEED 1 AF PER YEAR	HAYNES HARVEY R & YVONNE L REV TRUST		39-0004053	
111-23-BD-050-DM001	39-0004082	WELL	ZDYB, EDWARD J SR	DM	12/10/1979	NOT YET DETERMINED	NWSENE01 23S 20E	NWSENE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	ZDYB PATRICIA A		39-0004082	
111-23-BD-052-DM001	39-0003069, 39-0006548	WELL	HADLOCK, ERNEST H.	DM	4/10/1963	NOT YET DETERMINED	NWSWNE01 23S 20E	SWSWNE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	MORALES ANDREA L		39-0006548	
111-23-BD-060-DM001	39-0005767	WELL	NEAR, VIRGINIA B.	DM	12/31/1960	NOT YET DETERMINED	NWNSE01 23S 20E	NWNSE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	JUVERA CARLOS E & KELLY J		39-0005767	
111-23-BD-062-DM001	39-0006467	WELL	WATKINS, LUCIUS C JR	DM	4/30/1968	NOT YET DETERMINED	NWNSE01 23S 20E	NWNSE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	DICKERSON GERALD J		39-0006467	
111-23-BD-064-DM001	39-0002598	WELL	LARIMER, PAUL L.	DM	12/31/1969	NOT YET DETERMINED	SENWSE01 23S 20E	SENWSE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	RICHARDSON DENNIS B & DARCI P		39-0002598	
111-23-BD-065-DM001	39-0002271	WELL	BOWIE, THOMAS H.	DM	12/31/1951	NOT YET DETERMINED	SWNESE01 23S 20E	SWNESE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	BOWIE THOMAS H & JANICE M		39-0002271	



Table 2-4. Potential *De Minimis* Domestic PWRs

PROPOSED WATER RIGHT NUMBER	STATEMENT(S) OF CLAIMANT(S)	BASIS OF WATER RIGHT	OWNERSHIP (WFR LANDOWNER)	TYPE OF USE	PRIORITY DATE	SOURCE OF WATER	PLACE OF USE HSR	PLACE OF USE GIS	QUANTITY	CURRENT LAND OWNERSHIP	SAN PEDRO HSR LESSEE	PRIORITY DATE SOURCE	COMMENTS
111-23-BD-067-DM001	39-0012450	WELL	BEIL, ERNEST L.	DM	4/30/1969	NOT YET DETERMINED	SWNESE01 23S 20E	SWNESE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	CALL CAMILLE L		55-800267	
111-23-BD-072-DM001	39-0010850	WELL	ABERNATHEY, JACK L.	DM	9/19/1983	NOT YET DETERMINED	NESESE01 23S 20E	NESESE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	DAVIS DANIEL N JR		55-506129	
111-23-BD-081-DM001	39-0005377	WELL	DESLONGCHAMPS, DANNY H.	DM	6/23/1980	NOT YET DETERMINED	SESESE01 23S 20E	SESESE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	DAVIDSON/RIVAS		39-0005377	
111-23-BD-084-DM001	39-0011029	WELL	FERRARO, VINCENT J.	DM	8/30/1984	NOT YET DETERMINED	SESWSE01 23S 20E	SESWSE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	FERRARO VINCENT J & MARY E		39-0011029	
111-23-BD-090-DM001	39-0003348	WELL	SIEGMUND, MARTIN E.	DM	12/31/1955	NOT YET DETERMINED	SWSESE01 23S 20E	SWSESE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	BOWSER COLBY		39-0003348	
111-23-BD-092-DM001	39-0005376	WELL	THYGESEN, LOIS ANN	DM	4/19/1985	NOT YET DETERMINED	NESWSE01 23S 20E	NESWSE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	THYGESEN DENNIS SANDOVAL MIKE LOPEZ & KATHLEEN E PACE		1985 AERIAL PHOTO	
111-23-BD-094-DM001	39-0005640	WELL	WACTOR, MARK A. & SANDRA	DM	5/15/1980	NOT YET DETERMINED	NWSWSE01 23S 20E	NWSWSE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR			39-0005640	
111-23-BD-100-DM001	39-0006492	WELL	LUNDIN, MILTON C.	DM	11/30/1975	NOT YET DETERMINED	NWSENW01 23S 20E	NWSENW01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	III D'S LLC		39-0006492	
111-23-BD-101-DM001	39-0002897	WELL	GOBLE, BOBBY & BETTY J.	DM	11/8/1977	NOT YET DETERMINED	SWSENW01 23S 20E	SWSENW01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	GOBLE FAMILY TRUST		39-002897	
111-23-BD-102-DM001	39-0005602	WELL	YOUNG, THOMAS P.	DM	2/1/1979	NOT YET DETERMINED	SESWNW01 23S 20E	SESWNW01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	YOUNG MARLENE E QUALIFIED PERSONAL		39-0005602	
111-23-BD-104-DM001	39-0003434	WELL	YERMAL, JOHN & CAROL J.	DM	10/16/1965	NOT YET DETERMINED	NESENW01 23S 20E	NESENW01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	LARSON KEITH R & MARY		39-0003434	
111-23-BD-105-DM001	39-0001959	WELL	KOHARIK, EDWARD J JR	DM	12/31/1975	NOT YET DETERMINED	SWSENW01 23S 20E	SWSENW01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	NOLANDER JOHN C & CAROLINE R		39-001959	
111-23-BD-108-DM001	39-0011332	WELL	HUTH, JOHN F. & MARIA B.	DM	10/17/1984	NOT YET DETERMINED	NWNWNE01 23S 20E	NWSWNW01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	ANDERSEN ALFRED B & LORI		39-0011332	
111-23-BD-109-DM001	39-0011316	WELL	COFFEY, CHARLIE H.	DM	8/20/1983	NOT YET DETERMINED	NWSENW01 23S 20E	NWSENW01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	GOLLADAY FRED L & MARIA I		39-0011316	
111-23-DA-001-DM001	39-0003301	WELL	NANCE, LEONARD & MARY	DM	7/12/1978	NOT YET DETERMINED	SWNESE31 23S 22E	SWNESE31 23S 22E	NOT TO EXCEED 1 AF PER YEAR	SCOTT EDWARD S		39-0003301	
111-23-DA-006-DM001	39-0000640	WELL	ZAMORA, WILLIAM & AMONDA	DM	9/6/1977	NOT YET DETERMINED	NENWSW31 23S 22E, NENWSW31 23S 22E	NENWSE31 23S 22E	NOT TO EXCEED 1 AF PER YEAR	ZAMORA ROBERT A		39-000640	
111-23-DA-017-DM001	39-0002467, 39-0012558, 39-0012647	WELL	STRASSHOFFER, WILLIAM E.	DM	12/31/1974	NOT YET DETERMINED	NENWNE25 23S 21E	NWNWNE25 23S 21E	NOT TO EXCEED 1 AF PER YEAR	STRASSHOFFER WILLIAM E		39-0012647	
111-23-DA-018-DM001	39-0001640	WELL	MCGRATH, MARTHA M & URIARTE, ARTURO	DM	4/13/1985	NOT YET DETERMINED	SWNWNE25 23S 21E	SWNWNE25 23S 21E	NOT TO EXCEED 1 AF PER YEAR	ALLEMAN JAMES C REVOCABLE TRUST		1985 AERIAL PHOTO	
111-23-DA-019-DM001	39-0001640	WELL	HAUSCHILDT, JOHN H.	DM	12/23/1983	NOT YET DETERMINED	SENWNE25 23S 21E	SENWNE25 23S 21E	NOT TO EXCEED 1 AF PER YEAR	HAUSCHILDT JOHN H & JILL B LIVING TRUST		55-506827	
111-23-DA-021-DM001	39-0005197	WELL	FOSTER, ROSEMARY	DM	4/13/1985	NOT YET DETERMINED	NWNWSW25 23S 21E	NWNWSW25 23S 21E	NOT TO EXCEED 1 AF PER YEAR	COLLETT ELIZABETH A		1985 AERIAL PHOTO	
111-23-DA-022-DM001	39-0006379	WELL	NEWELL, KENNETH R	DM	11/9/1979	NOT YET DETERMINED	NESWSW25 23S 21E	NESWSW25 23S 21E	NOT TO EXCEED 1 AF PER YEAR	NEWELL KENNETH R & SHARON L (2)		39-0006379	
111-23-DA-025-DM001	39-0005738, 39-0005773	WELL	LEFTAULT, CHARLES J.	DM	12/31/1916	NOT YET DETERMINED	SESESE35 23S 21E	SESESE35 23S 21E	NOT TO EXCEED 1 AF PER YEAR	C & J RANCH LP		39-0005773	
111-23-DA-029-DM001	39-0002907	WELL	WALLER, VICTOR M	DM	5/10/1979	NOT YET DETERMINED	SESESE32 23S 22E	SESESE32 23S 22E	NOT TO EXCEED 1 AF PER YEAR	BAT HOLDINGS EIGHT LLC		39-0002907	
111-23-DB-004-DM001	39-0006003	WELL	JONES, FLOYD O.	DM	8/26/1960	NOT YET DETERMINED	SWSESE18 23S 21E	SWSESE18 23S 21E	NOT TO EXCEED 1 AF PER YEAR	JONES MARK D & PATTY		39-0006003	
111-23-DB-007-DM001	39-0003397	WELL	MARTIN, JAMES L	DM	9/25/1975	NOT YET DETERMINED	SWSWSE18 23S 21E, NWSWSE18 23S 21E	NWSWSE18 23S 21E	NOT TO EXCEED 1 AF PER YEAR	MARTIN JAMES LEE & NELLIE L TRUSTEES		39-003397	
111-23-DB-008-DM001	39-0011039	WELL	GOODFELLOW, DARLENE R.	DM	12/31/1972	NOT YET DETERMINED	SENESE18 23S 21E	SENESE18 23S 21E	NOT TO EXCEED 1 AF PER YEAR	HALE WILLIAM H JR & CHERYL J		39-0011039	
111-23-DB-009-DM001	39-0001988	WELL	FURLONG, CLARENCE E JR	DM	1/22/1976	NOT YET DETERMINED	SENENW19 23S 21E	SENENW19 23S 21E	NOT TO EXCEED 1 AF PER YEAR	RUTHERFORD DAN		39-001988	
111-23-DB-010-DM001	39-0011081	WELL	LAMBERTSON, WAYNE J	DM	6/20/1984	NOT YET DETERMINED	SENENW19 23S 21E	SENENW19 23S 21E	NOT TO EXCEED 1 AF PER YEAR	BELL TOREY M & SHANNAN P		39-0011081	
111-23-DB-014-DM001	39-0011921	WELL	DE PEW, DANIEL L.	DM	11/15/1984	NOT YET DETERMINED	SENWNE19 23S 21E	NESWNE19 23S 21E	NOT TO EXCEED 1 AF PER YEAR	FERGUSON CHARLES N		39-0011921	
111-23-DB-015-DM001	39-0011012	WELL	DOWNEY, LAVELLE LARRY	DM	2/1/1984	NOT YET DETERMINED	SENENW19 23S 21E	SWNENW19 23S 21E	NOT TO EXCEED 1 AF PER YEAR	AGUIRRE RICHARD & IRENE		39-0011012	
111-23-DB-016-DM001	39-0005742	WELL	MCBRIDE, LA JUANA F.	DM	8/8/1962	NOT YET DETERMINED	SWNWNE19 23S 21E	SWNWNE19 23S 21E	NOT TO EXCEED 1 AF PER YEAR	KENT PATRICIA REV LIV TRUST		39-0005742	
111-23-DB-017-DM001	39-0001684	WELL	HOUGLAND WATER COMPANY	DM	11/1/1960	NOT YET DETERMINED	NWNNE19 23S 21E	NWNNE19 23S 21E	NOT TO EXCEED 1 AF PER YEAR	LAWLEY CAROL		39-0001684	
111-23-DB-018-DM001	39-0003299, 39-0005916	WELL	DOSER, THOMAS & JUDITH	DM	3/31/1973	NOT YET DETERMINED	SENENW15 23S 21E	NESENW15 23S 21E	NOT TO EXCEED 1 AF PER YEAR	DOSER REVOCABLE TRUST		39-003299	
111-23-DB-019-DM001	39-0003858, 39-0003859	WELL	HOFFSCHILD, JOHN	DM	4/13/1954	NOT YET DETERMINED	NENENE19 23S 21E	NENENE19 23S 21E	NOT TO EXCEED 1 AF PER YEAR	PEDLOW ALASKA COMMUNITY PROPERTY TRUST		39-0003859	
111-23-DB-020-DM001	39-0005631	WELL	YOUNG, LORAN C. & PHYLLIS	DM	1/1/1960	NOT YET DETERMINED	SENEENE19 23S 21E	SENEENE19 23S 21E	NOT TO EXCEED 1 AF PER YEAR	YOUNG LORAN CHARLES & PHYLLIS REV TR		39-0005631	
111-23-DB-023-DM001	39-0005803	WELL	STEWART, LOWELL G.	DM	12/31/1956	NOT YET DETERMINED	NWSENE19 23S 21E	NWSENE19 23S 21E	NOT TO EXCEED 1 AF PER YEAR	ALDRICH HARLEY W & KATHLEEN M		39-0005803	
111-23-DB-033-DM001	39-0005706, 39-0006071	WELL	NANCE, LEONARD & MARY	DM	12/31/1918	NOT YET DETERMINED	SESENE19 23S 21E	SESENE19 23S 21E	NOT TO EXCEED 1 AF PER YEAR	LACEY WILLIAM JR		39-0005706	





Table 2-4. Potential *De Minimis* Domestic PWRs

PROPOSED WATER RIGHT NUMBER	STATEMENT(S) OF CLAIMANT(S)	BASIS OF WATER RIGHT	OWNERSHIP (WFR LANDOWNER)	TYPE OF USE	PRIORITY DATE	SOURCE OF WATER	PLACE OF USE HSR	PLACE OF USE GIS	QUANTITY	CURRENT LAND OWNERSHIP	SAN PEDRO HSR LESSEE	PRIORITY DATE SOURCE	COMMENTS
111-23-DB-034-DM001	39-0011868	WELL	JORDAN, BARBARA B.	DM	12/31/1947	NOT YET DETERMINED	NESENE19 23S 21E	NESENE19 23S 21E	NOT TO EXCEED 1 AF PER YEAR	NEWMAN LOU A		55-646809	
111-23-DB-035-DM001	39-0005804	WELL	MOHAMMED, ABRAHAM & EVA	DM	11/1/1968	NOT YET DETERMINED	SWNWNW19 23S 21E	SWNWNW20 23S 21E	NOT TO EXCEED 1 AF PER YEAR	MOHAMMED ABRAHAM M & EVA D REV LIV TR		39-0005804	
111-23-DB-037-DM001	39-0011247	WELL	CRIST, JUDITH A.	DM	12/31/1972	NOT YET DETERMINED	NENWNW20 23S 21E	NENWNW20 23S 21E	NOT TO EXCEED 1 AF PER YEAR	CRAWFORD TRUST		39-0011247	
111-23-DB-038-DM001	39-0003874	WELL	WEILAND, JOHN P.	DM	10/25/1975	NOT YET DETERMINED	SEENENW20 23S 21E	SEENENW20 23S 21E	NOT TO EXCEED 1 AF PER YEAR	FIFE RICHARD JOHN & LARK LYNELLE		39-0003874	
111-23-DB-040-DM001	39-0000641	WELL	SHIPEK, DAVID C & LINES, KIM	DM	1/1/1912	NOT YET DETERMINED	SWSWSW17 23S 21E	SWSWSW17 23S 21E	NOT TO EXCEED 1 AF PER YEAR	DOBIAS WILLIAM C & EILEEN B (2)		39-000641	
111-23-DB-042-DM001	39-0003001	WELL	SALING, JAMES D.	DM	9/1/1973	NOT YET DETERMINED	SWSESW17 23S 21E	SWSESW17 23S 21E	NOT TO EXCEED 1 AF PER YEAR	JONES VIRGIL H & LUNA I		39-0003001	
111-23-DB-044-DM001	39-0003867	WELL	SWACKHAMER, RONALD J.	DM	9/15/1981	NOT YET DETERMINED	SESWNW17 23S 21E	SESWNW17 23S 21E	NOT TO EXCEED 1 AF PER YEAR	SWACKHAMER RONALD J & KATHRYN G		39-0003867	
111-23-DB-054-DM001	39-0006395	WELL	GUIDROZ, EVANS J. & OLGA	DM	12/31/1930	NOT YET DETERMINED	SENESEW18 23S 21E	SENESEW18 23S 21E	NOT TO EXCEED 1 AF PER YEAR	RODCAY THOMAS E		39-0006395	
111-23-DB-057-DM001	39-0003456	WELL	MOSON, IVA JANE	DM	1/7/1941	NOT YET DETERMINED	NWNWSW32 23S 21E	SWNWSW32 23S 21E	NOT TO EXCEED 1 AF PER YEAR	HERROD FAMILY TRUST		39-0003456	
111-23-DB-059-DM001	39-0005783	WELL	MUMAW, DEAN W.	DM	12/31/1971	NOT YET DETERMINED	NWNESW32 23S 21E	NWNESW32 23S 21E	NOT TO EXCEED 1 AF PER YEAR	OLSON WILLIAM MICHAEL		39-0005783	
111-23-DB-061-DM001	39-0004076	WELL	KRAS, WALTER J.	DM	6/3/1971	NOT YET DETERMINED	NWSESW32 23S 21E	NWSESW32 23S 21E	NOT TO EXCEED 1 AF PER YEAR	KRAS WALTER J & F ELIZABETH		39-0004076	
111-23-DB-062-DM001	39-0011979	WELL	CHILDS, DONALD C.	DM	6/5/1975	NOT YET DETERMINED	NENESW32 23S 21E	NENESW32 23S 21E	NOT TO EXCEED 1 AF PER YEAR	CHILDS DONALD C TRUST		39-0011979	
111-23-DB-063-DM001	39-0004052	WELL	SELF, DUANE M.	DM	4/30/1971	NOT YET DETERMINED	NWNWSE32 23S 21E	NWNWSE32 23S 21E	NOT TO EXCEED 1 AF PER YEAR	DUCKWORTH SAM HARVEY JR & TRUDE S		39-0004052	
111-23-DB-064-DM001	39-0003432	WELL	SPAL, EMIL N.	DM	12/31/1976	NOT YET DETERMINED	NENESW32 23S 21E	NENESW32 23S 21E	NOT TO EXCEED 1 AF PER YEAR	OUR LADY OF THE SIERRAS FOUNDATION		39-003432	
111-23-DB-066-DM001	39-0003457	36-0037178	NICKERSON, JAMES O JR	DM	9/15/1969	NOT YET DETERMINED	SWNWISE32 23S 21E	SWNWISE32 23S 21E	NOT TO EXCEED 1 AF PER YEAR	LYNDA THERESA & MICHAEL TRUST		36-0037178	
111-23-DB-067-DM001	39-0011125, 39-0011126	WELL	CHANDLER, VERNON E.	DM	6/30/1977	NOT YET DETERMINED	SENWSE32 23S 21E	SENWSE32 23S 21E	NOT TO EXCEED 1 AF PER YEAR	ISAAK DAVID G & BRENDA L		39-0011125	
111-23-DB-068-DM001	39-0001686	WELL	PAIS, JOSEPH R. & MARY	DM	9/13/1974	NOT YET DETERMINED	SENWSE32 23S 21E	SENWSE32 23S 21E	NOT TO EXCEED 1 AF PER YEAR	PAIS LIVING TRUST		39-001686	
111-23-DB-072-DM001	39-0002898, 39-0080220	WELL	PETERSON, FRANK E.	DM	6/9/1977	NOT YET DETERMINED	SESESE32 23S 21E	SESESE32 23S 21E	NOT TO EXCEED 1 AF PER YEAR	TRUKKEN SUSAN		39-0002898	
111-23-DB-073-DM001	39-0003392	WELL	LINES, JOSEPH E.	DM	6/18/1972	NOT YET DETERMINED	SWSESE32 23S 21E	SWSESE32 23S 21E	NOT TO EXCEED 1 AF PER YEAR	JANSSEN GEORGE MICHAEL JR		39-0003392	
111-23-DB-074-DM001	39-0006591	WELL	MEE, ROBERT C. & MARY L.	DM	12/3/1979	NOT YET DETERMINED	SWSESE32 23S 21E	SWSESE32 23S 21E	NOT TO EXCEED 1 AF PER YEAR	STALLCUP MICHAEL & LISA		39-0006591	
111-23-DB-075-DM001	39-0011864, 39-0011865	WELL	BOWERS, WILLIAM R.	DM	6/15/1969	NOT YET DETERMINED	SWSESE32 23S 21E	SWSESE32 23S 21E	NOT TO EXCEED 1 AF PER YEAR	FLETCHER KENNETH P & SARA J		39-0011864	
111-23-DB-077-DM001	39-0005741	WELL	BRUNO, JOHN J JR & GOLDEN, GLORIA M.	DM	7/2/1977	NOT YET DETERMINED	SWSESE32 23S 21E	SWSESE32 23S 21E	NOT TO EXCEED 1 AF PER YEAR	BRUNO JOHN A JR & GLORIA M GOLDEN		39-0005741	
111-23-DB-079-DM001	39-0005679	WELL	SCHRADER, JACK L.	DM	12/31/1965	NOT YET DETERMINED	NESWSE32 23S 21E	NESWSE32 23S 21E	NOT TO EXCEED 1 AF PER YEAR	MCBRIDE FAMILY TRUST		39-0005679	
111-23-DB-081-DM001	39-0011409	WELL	FADER, ROBERT J. & RUTH	DM	5/15/1979	NOT YET DETERMINED	NWSWSE32 23S 21E, NESESW32 23S 21E	NESESW32 23S 21E	NOT TO EXCEED 1 AF PER YEAR	JUNIOR TIMOTHY CHARLES & KATHLEEN A		39-0011409	
111-23-DB-084-DM001	39-0011317	WELL	BALDWIN, EDWARD F.	DM	9/4/1982	NOT YET DETERMINED	NESESW32 23S 21E	NESESW32 23S 21E	NOT TO EXCEED 1 AF PER YEAR	OUR LADY OF THE SIERRAS FOUNDATION		39-0011317	
111-23-DB-086-DM001	39-0005634	WELL	SCHWITZING, INGEBORG L.	DM	12/31/1970	NOT YET DETERMINED	SENESEW32 23S 21E	NESESW32 23S 21E	NOT TO EXCEED 1 AF PER YEAR	OUR LADY OF THE SIERRAS FOUNDATION		39-0005634	
111-23-DB-088-DM001	39-0011846	WELL	HYNEK, DAVID	DM	10/31/1982	NOT YET DETERMINED	SWSWSE32 23S 21E	SESESW32 23S 21E	NOT TO EXCEED 1 AF PER YEAR	RIORDAN BRIAN J & CAROL R		39-0011846	
111-23-DB-089-DM001	39-0003611, 39-0010847	WELL	BAUMKIRCHNER, FRED E.	DM	8/28/1979	NOT YET DETERMINED	NWSWSW29 23S 21E	NWSWSW29 23S 21E	NOT TO EXCEED 1 AF PER YEAR	GUEST JERRY G & SHARON L		39-0003611	
111-23-DD-002-DM001	39-0012458	WELL	CARAWAY, ARMILDA J.	DM	8/31/1963	NOT YET DETERMINED	NENENW01 24S 21E	NENENW02 24S 21E	NOT TO EXCEED 1 AF PER YEAR	PRICKETT ROBERTA JEAN		39-0012458	
111-23-DD-005-DM001	39-0002550	WELL	LEIENDECKER, PHILIP S.	DM	4/30/1979	NOT YET DETERMINED	NWSENE06 24S 22E	NWSENE06 24S 22E	NOT TO EXCEED 1 AF PER YEAR	LEIENDECKER PHILIP STEPHEN AND/OR SUSAN		39-002550	
111-23-DD-006-DM001	39-0004331	WELL	KEMERY, SHERRY R	DM	5/7/1979	NOT YET DETERMINED	SESWNW05 24S 22E	SESWNW05 24S 22E	NOT TO EXCEED 1 AF PER YEAR	KEMERY SHERRY ROSE		39-0004331	
111-23-DD-007-DM001	39-0002339	WELL	BAKER, SARAH EUGENIE	DM	9/30/1961	NOT YET DETERMINED	NESWNW05 24S 22E	NESWNW05 24S 22E	NOT TO EXCEED 1 AF PER YEAR	NELSON VICKI P		39-002339	
111-23-DD-009-DM001	39-0005764	WELL	SELLERS, CHARLES L.	DM	8/25/1980	NOT YET DETERMINED	NENWNW05 24S 22E	NENWNW05 24S 22E	NOT TO EXCEED 1 AF PER YEAR	KING DANA		39-0005764	
111-23-DD-010-DM001	39-0001687, 39-0011328	WELL	CREAGER, P. ROWENA	DM	8/20/1963	NOT YET DETERMINED	NENWNW05 24S 22E	NENWNW05 24S 22E	NOT TO EXCEED 1 AF PER YEAR	SECRETARY OF HOUSING & URBAN DEVELOPMENT		39-001687	
111-23-DD-012-DM001	39-0000109	WELL	VAN NATTAN, DANIEL W.	DM	9/12/1977	NOT YET DETERMINED	SESWNW05 24S 22E	SESWNW05 24S 22E	NOT TO EXCEED 1 AF PER YEAR	B B & V L LEIENDECKER REVOCABLE TRUST		55-644205	
111-23-DD-016-DM001	39-0001696	WELL	KADEL, FREDERICK	DM	12/31/1959	NOT YET DETERMINED	NENENE05 24S 22E	NENENE05 24S 22E	NOT TO EXCEED 1 AF PER YEAR	MAYNE RICHARD L & DEBRA J		39-0001696	
111-23-DD-017-DM001	39-0006597	WELL	CORRAL, FERNANDO	DM	4/13/1985	NOT YET DETERMINED	NWNENW02 24S 21E	NWNENW02 24S 21E	NOT TO EXCEED 1 AF PER YEAR	HAWKINS KENT CAMERON		1985 AERIAL PHOTO	



Table 2-4. Potential *De Minimis* Domestic PWRs

PROPOSED WATER RIGHT NUMBER	STATEMENT(S) OF CLAIMANT(S)	BASIS OF WATER RIGHT	OWNERSHIP (WFR LANDOWNER)	TYPE OF USE	PRIORITY DATE	SOURCE OF WATER	PLACE OF USE HSR	PLACE OF USE GIS	QUANTITY	CURRENT LAND OWNERSHIP	SAN PEDRO HSR LESSEE	PRIORITY DATE SOURCE	COMMENTS
111-23-DD-018-DM001	39-0002999	WELL	REELY, RICHARD & BETH	DM	6/23/1969	NOT YET DETERMINED	NWNWNW02 24S 21E	NWNWNW02 24S 21E	NOT TO EXCEED 1 AF PER YEAR	CATTAU EUGENE L & LINDA L		39-002999	
111-23-DD-020-DM001	39-0011920	WELL	COX, DUANE D. & CAROLE E.	DM	10/28/1982	NOT YET DETERMINED	NWSWNW12 24S 21E	NWSWNW12 24S 21E	NOT TO EXCEED 1 AF PER YEAR	MONTGOMERY CORY T & JANE		39-0011920	
111-23-DDA-004-DM001	39-0005369, 39-0011935	WELL	CHURCH OF JESUS CHRIST - LDS	DM	12/31/1910	NOT YET DETERMINED	SENEE05 24S 22E	SWNENE05 24S 22E	NOT TO EXCEED 1 AF PER YEAR	RAE KEITH A & VICKY L		39-0005369	
111-23-DDA-016-DM001	39-0006563	WELL	LEIENDECKER, BENJAMIN B.	DM	6/20/1954	NOT YET DETERMINED	NWNWNW05 24S 22E	NWNWNW05 24S 22E	NOT TO EXCEED 1 AF PER YEAR	LEIENDECKER BENJAMIN BOOTH & VIRGINIA LEE		39-0006563	
111-23-DDA-016-DM002	39-0005693	WELL	LEIENDECKER, BENJAMIN B.	DM	7/5/1948	NOT YET DETERMINED	NENWNW04 24S 22E	NENWNW04 24S 22E	NOT TO EXCEED 1 AF PER YEAR	LEIENDECKER BENJAMIN BOOTH & VIRGINIA LEE		39-0005693	
111-23-DDD-002-DM001	39-0003833, 39-0003834, 39-0012804, 39-0012805	36-0043056	SMITH, ROSE A. CLINTON	DM	2/15/1977	NOT YET DETERMINED	NENENE18 24S 22E	NENENE18 24S 22E	NOT TO EXCEED 1 AF PER YEAR	YARBROUGH CHERYL A		39-0003834	
111-24-026-DM001	39-0002464	36-0021973, 36-0025595	FRANKLE, LAWRENCE & FRANKLE, DAVID	DM	6/30/1913	SURFACE WATER	NWSWNW06 23S 24E	NWSWNW06 23S 24E	NOT TO EXCEED 1 AF PER YEAR	SUSNOW CAROLYNN G		36-0021973	
111-24-043-DM001	39-0002188	WELL	MILLER, CHARLES G & CHARLES R	DM	7/15/1953	NOT YET DETERMINED	SWNESW07 24S 24E	SWNESW07 24S 24E	NOT TO EXCEED 1 AF PER YEAR	MILLER CHARLES G REVOCABLE LIVING TRUST		39-0002188	
111-24-044-DM001	39-0005733	WELL	HANSFORD, CHARLENE DEE	DM	12/31/1937	NOT YET DETERMINED	SWSWNW06 23S 23E	NWSWNW06 23S 23E	NOT TO EXCEED 1 AF PER YEAR	HANSFORD CHARLENE DEE		39-0005733	
111-24-062-DM001	39-0003439	36-0041841	ROZZANO, MARY E & WEED, PEGGY A	DM	5/1/1914	NOT YET DETERMINED	NESWSW05 24S 24E	NESWSW05 24S 24E	NOT TO EXCEED 1 AF PER YEAR	ROZZANO MARY E REVOCABLE TRUST		36-0041841	
111-24-084-DM001	39-0001620	WELL	NIGHTINGALE, JAMES A.	DM	1/1/1960	NOT YET DETERMINED	NESWSE01 23S 22E	NESWSE01 23S 22E	NOT TO EXCEED 1 AF PER YEAR	NIGHTINGALE JULIA TRUST (2)		55-646157	
111-24-AC-016-DM001	39-0014435	WELL	DAVIS, JAMES E & DAVIS, LUCILLE A.	DM	11/26/1990	NOT YET DETERMINED	SWNENE01 23S 23E	NESENE01 23S 23E	NOT TO EXCEED 1 AF PER YEAR	HOYER TODD SANDERS & HAYLEY JANE SMITH		39-0014435	
111-24-BC-001-DM001	39-0004368	WELL	CUNNINGHAM, KENNETH L. WOLVERTON, DULDRES T.	DM	1/1/1985	NOT YET DETERMINED	SESENE03 23S 22E	NENESE03 23S 22E	NOT TO EXCEED 1 AF PER YEAR	GREENBERG DAVID L & SHERRI L		1985 AERIAL PHOTO	
111-24-BC-002-DM001	39-0012635	WELL	FIKSTAD, LORIN M.	DM	11/1/1972	NOT YET DETERMINED	NESESW01 23S 22E	SEENENW01 23S 22E	NOT TO EXCEED 1 AF PER YEAR	SYLVESTER EDWARD R & JENIFFER P		39-0012635	
111-24-BD-003-DM001	39-0002905	WELL	CAPPS, FREDDIE L.	DM	4/19/1985	NOT YET DETERMINED	NESESW06 23S 23E	NESESW06 23S 23E	NOT TO EXCEED 1 AF PER YEAR	JOHNSON BRUCE A & KAREN S		1985 AERIAL PHOTO	
111-24-BD-007-DM001	39-0011624	WELL	MONTGOMERY, RICHARD L.	DM	11/21/1983	NOT YET DETERMINED	NWNNESE05 23S 23E	NWNNESE05 23S 23E	NOT TO EXCEED 1 AF PER YEAR	ACHESON CHRISTOPHER A & DEIRDRE A		39-0011624	
111-24-CA-001-DM001	39-0005812	WELL	GOODWIN, CYRUS L.	DM	1/1/1977	NOT YET DETERMINED	NWNENW31 23S 23E	NENENW31 23S 23E	NOT TO EXCEED 1 AF PER YEAR	ANDERSON LYNN E & MARY BETH SUTOR		39-0005812	
111-24-CA-002-DM001	39-0004009	WELL	CAMPBELL, ELEANOR N.	DM	10/30/1976	NOT YET DETERMINED	NWNNESE30 23S 23E	NWNNESE30 23S 23E	NOT TO EXCEED 1 AF PER YEAR	WEEKS PHILLIP & ELIZABETH		39-0004009	
111-24-CA-003-DM001	39-0003318	WELL	BOOZE, CLARENCE E	DM	11/26/1979	NOT YET DETERMINED	NENWNW31 23S 23E	NENWNW31 23S 23E	NOT TO EXCEED 1 AF PER YEAR	FEENSTRA MARLA R		39-0003318	
111-24-CB-001-DM001	39-0012274, 39-0012275	WELL	MCWHORTER, DAWLTON E.	DM	12/31/1979	NOT YET DETERMINED	SWNWSE28 23S 22E	SWNWSE28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	MCWHORTER ESTHER		39-0012274	
111-24-CB-003-DM001	39-0003400	WELL	WICKE, LAWRENCE H.	DM	7/20/1969	NOT YET DETERMINED	NENWSE28 23S 22E	NENWSE28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	WICKE BRADLEY L & KATHERINE M		39-003400	
111-24-CB-004-DM001	39-0003322, 39-0012813	WELL	SAMPSON, WILFRED C.	DM	6/14/1921	NOT YET DETERMINED	NENWSE28 23S 22E	NENWSE28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	WICKE LAWRENCE H & VIRGINA A		39-003322	
111-24-CB-007-DM001	39-0006392	WELL	WEIK, SOPHIE E	DM	6/30/1962	NOT YET DETERMINED	NENWSE27 23S 22E	NENWSE27 23S 22E	NOT TO EXCEED 1 AF PER YEAR	HYDE STEPHEN DAVID		39-0006392	
111-24-CB-010-DM001	39-0006369	WELL	WOO, FULTON KUN & KWAN, TERESA OI	DM	3/16/1977	NOT YET DETERMINED	SESWSE33 23S 22E	SESWSE33 23S 22E	NOT TO EXCEED 1 AF PER YEAR	WOO FULTON KUN & TERESA OI KWAN		39-0006369	
111-24-CB-015-DM001	39-0003459, 39-0004154, 39-0011674	36-0080098	RIBIC, ANITA DAVIS	DM	1/28/1908	NOT YET DETERMINED	SWSWSW33 23S 22E	SWSWSW33 23S 22E	NOT TO EXCEED 1 AF PER YEAR	MILLER CARL H REV LIV TRUST		36-0080098	
111-24-CB-028-DM001	39-0011057	WELL	DUCKER, ROBERT B & HALPINE, THERESA A.	DM	12/31/1930	NOT YET DETERMINED	NWSWSE33 23S 22E	NWSWNE33 23S 22E	NOT TO EXCEED 1 AF PER YEAR	PREZYNA ANN E & GORDON LEWIS		39-0011057	
111-24-CB-029-DM001	39-0005922, 39-0005923, 39-0005924, 39-0005925	36-0043058, 36-0043059	ULLRICH, WILLIAM P., ETUX PEAT, JILL E & OLEANDER, RONALD P.	DM	7/21/1947	NOT YET DETERMINED	SENWNE33 23S 22E	SENWNE33 23S 22E	NOT TO EXCEED 1 AF PER YEAR	GRAF CHARLES G & MARY M		36-0043058	
111-24-CB-030-DM001	39-0006363	WELL		DM	7/24/1975	NOT YET DETERMINED	SENWNE33 23S 22E	NESWNE33 23S 22E	NOT TO EXCEED 1 AF PER YEAR	HICKS PERRY L & SHIRLEY L BAYHAM		39-0006363	
111-24-CB-031-DM001	39-0003319, 39-0011342	WELL	BENNETT, FRANKLIN G.	DM	12/3/1968	NOT YET DETERMINED	NWNENE33 23S 22E	NWNENE33 23S 22E	NOT TO EXCEED 1 AF PER YEAR	MCARTHUR RICHARD D		39-0003319	
111-24-CB-035-DM001	39-0000381	WELL	BARNETT, OTIS & PATRICIA	DM	9/30/1970	NOT YET DETERMINED	NWSWSE28 23S 22E	NWSWSE28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	BARNETT SR GARY L & LAVENA J		39-000381	
111-24-CB-037-DM001	39-0002883	WELL	WILSON, DALE E.	DM	3/30/1970	NOT YET DETERMINED	SENWSE28 23S 22E	SENWSE28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	KENNEY TIMOTHY D		39-0002883	
111-24-CB-038-DM001	39-0005860, 39-0011248	WELL	GASTON, FREDERICK DAVID	DM	10/26/1980	NOT YET DETERMINED	SENWSE28 23S 22E	SENWSE28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	GASTON JUDITH RAE		39-0005860	
111-24-CB-041-DM001	39-0006635	WELL	LITTLE, MICHAEL C.	DM	3/1/1972	NOT YET DETERMINED	SWNWSE28 23S 22E	SWNWSE28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	BRENTS ANNA FAITH		55-637198	
111-24-CB-042-DM001	39-0001739	WELL	DUFFY, EUGENE L.	DM	12/31/1971	NOT YET DETERMINED	SWNWSE28 23S 22E	SWNWSE28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	DUFFY EUGENE L & PHYLLIS A		39-0001739	
111-24-CB-045-DM001	39-0006382, 39-0012557	WELL	BARNES, BURTON	DM	9/2/1971	NOT YET DETERMINED	SESENW28 23S 22E	SESENW28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	BARNES PEGGY M		39-0006382	
111-24-CB-048-DM001	39-0011978	WELL	MARKEE, BRUCE & KATHY	DM	4/19/1985	NOT YET DETERMINED	NESENW28 23S 22E	NESENW28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	BOGART EVIE VAN DE		1985 AERIAL PHOTO	
111-24-CB-050-DM001	39-0005831	WELL	STORMS, CECIL H.	DM	4/19/1985	NOT YET DETERMINED	NWSWNW28 23S 22E	NWSWNW28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	THRASHER GARY A & JEAN J		1985 AERIAL PHOTO	



Table 2-4. Potential *De Minimis* Domestic PWRs

PROPOSED WATER RIGHT NUMBER	STATEMENT(S) OF CLAIMANT(S)	BASIS OF WATER RIGHT	OWNERSHIP (WFR LANDOWNER)	TYPE OF USE	PRIORITY DATE	SOURCE OF WATER	PLACE OF USE HSR	PLACE OF USE GIS	QUANTITY	CURRENT LAND OWNERSHIP	SAN PEDRO HSR LESSEE	PRIORITY DATE SOURCE	COMMENTS
111-24-CB-051-DM001	39-0005888	WELL	ADAMS, LINDA	DM	1/1/1968	NOT YET DETERMINED	SEENENW28 23S 22E	SEENENW28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	RICE RICHARD & DENISE		55-629911	
111-24-CB-052-DM001	39-0005839	WELL	LANGSTON, JAY & DIANE	DM	9/30/1977	NOT YET DETERMINED	SEENENW28 23S 22E	SEENENW28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	RICE RICHARD L & DENISE E		39-0005839	
111-24-CB-053-DM001	39-0012597	WELL	STALLER, DENNIS M.N.	DM	12/31/1950	NOT YET DETERMINED	NENENW28 23S 22E	NENENW28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	STALLER DENNIS M & PAMELA LYNN		39-0012597	
111-24-CB-055-DM001	39-0004018	WELL	KEMERY, DAVID J.	DM	9/30/1971	NOT YET DETERMINED	SWNENW28 23S 22E	SWNENW28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	MORAN THOMAS E		39-0004018	
111-24-CB-057-DM001	39-0002879, 39-0002895, 39-0010981	WELL	OLANDER, CARL & BETTY F.	DM	8/31/1971	NOT YET DETERMINED	NWNENW28 23S 22E	NWNENW28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	CAMPBELL JAN MARIE		39-0002879	
111-24-CB-058-DM001	39-0002986	WELL	WEGENER, ELROY A.	DM	10/15/1975	NOT YET DETERMINED	NWNWNW28 23S 22E	NWNWNW28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	BALES JOSEPH LEONARD		39-0002986	
111-24-CB-063-DM001	39-0005772	WELL	SHERRELL, RAYMOND	DM	6/22/1969	NOT YET DETERMINED	NWNWSE28 23S 22E	NWNWSE28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	DOLLARD ROBERT J & PAMELA S DRAKE		39-0005772	
111-24-CB-065-DM001	39-0005894	WELL	HILL, CHARLIE A JR	DM	6/1/1964	NOT YET DETERMINED	SWSWSE33 23S 22E	SWSESE33 23S 22E	NOT TO EXCEED 1 AF PER YEAR	LUCAS HAROLD W & NANCY J REVOCABLE TRUST		39-0005894	
111-24-CB-066-DM001	39-0005830	WELL	WILLIAMS, RUSSELL V.	DM	11/20/1976	NOT YET DETERMINED	NESWNW28 23S 22E	NESWNW28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	THRASHER GARY A & JEAN J		39-0005830	
111-24-CB-067-DM001	39-0000134	WELL	AKERS, J.P. & MARY F.	DM	5/14/1974	NOT YET DETERMINED	SWSESW28 23S 22E	SESWSE28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	AKERS J P & MARY F FAM TRUST		39-000134	
111-24-CB-069-DM001	39-0005835, 39-0010917	WELL	WEERTS, HELEN M.	DM	4/15/1978	NOT YET DETERMINED	NESESE19 23S 23E	NESESE19 23S 23E	NOT TO EXCEED 1 AF PER YEAR	ROBERTS KAREN		39-0010917	
111-24-CBB-003-DM001	39-0003798, 39-0011030	36-0038468	MCDOWELL CRAIG MFG. CO.	DM	12/31/1910	NOT YET DETERMINED	SESENW22 23S 22E	SESENW22 23S 22E	NOT TO EXCEED 1 AF PER YEAR	ECHOING HOPE RANCH		39-0003798	
111-24-CBB-004-DM001	39-0002262	WELL	FIRST INTERSTATE BANK OF AZ	DM	12/31/1940	NOT YET DETERMINED	SWSWNE15 23S 22E	SWSWNE15 23S 22E	NOT TO EXCEED 1 AF PER YEAR	RANCHO DEL RIO SAN PEDRO LLC		39-002262	
111-24-CBC-002-DM001	39-0005979, 39-0005980, 39-0005981, 39-0005987, 39-0005988	WELL	WEIK, ALFRED J. & EILEEN	DM	12/31/1911	NOT YET DETERMINED	NESESW27 23S 22E	NENESW27 23S 22E	NOT TO EXCEED 1 AF PER YEAR	ISAACSON FAMILY TRUST		39-0005979	
111-24-CBC-015-DM001	39-0011011	WELL	BARNEY, NEWELL A.	DM	12/31/1919	NOT YET DETERMINED	SWNWSW33 23S 22E	SWNWSW33 23S 22E	NOT TO EXCEED 1 AF PER YEAR	CESSNA VERNICE R & MONIKA A		39-0011011	
111-24-CBC-043-DM001	39-0002593	WELL	WILLIAMS, HASKELL G	DM	6/10/1965	NOT YET DETERMINED	SWNWNW28 23S 22E	SWNWNW28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	NETHERTON CHARLES R & LINDA J		39-0002593	
111-24-CBC-072-DM001	39-0011268	WELL	LINGO, ALVIN H.	DM	8/20/1971	NOT YET DETERMINED	NWNENW28 23S 22E	NWNENW28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	LINGO ALVIN H & PEGGY E		39-0011268	
111-24-CC-005-DM001	39-0005859	WELL	ASSEMBLIES OF GOD, INC.	DM	12/31/1949	NOT YET DETERMINED	NWNWNW04 24S 22E	NWNWNW04 24S 22E	NOT TO EXCEED 1 AF PER YEAR	ASSEMBLIES OF GOD INC ARIZ DIST CNCL		39-0005859	
111-24-CC-006-DM001	39-0002453	WELL	LEIENDECKER, URBANE S.	DM	4/20/1949	NOT YET DETERMINED	NENWNW04 24S 22E	NENWNW04 24S 22E	NOT TO EXCEED 1 AF PER YEAR	LEIENDECKER BENJAMIN BOOTH & VIRGINIA LEE		39-002453	
111-24-CC-008-DM001	39-0001187	WELL	ARNOLD, RICHARD B	DM	12/31/1941	NOT YET DETERMINED	NWNENW04 24S 22E	NWNENW04 24S 22E	NOT TO EXCEED 1 AF PER YEAR	ARNOLD BROTHERS IRREVOCABLE TRUST		39-0001187	
111-24-CC-009-DM001	39-0000122	WELL	GRAHAM, JACK D.	DM	6/1/1985	NOT YET DETERMINED	NWNWNW04 24S 22E	NWNWNW04 24S 22E	NOT TO EXCEED 1 AF PER YEAR	PRATT JOHN M & BRENDA M		55-511139	
111-24-CCB-002-DM001	39-0002596	WELL	MOTT, NONA B.	DM	8/4/1926	NOT YET DETERMINED	SWNENE03 24S 22E	SWNENE03 24S 22E	NOT TO EXCEED 1 AF PER YEAR	MOTT DONALD BRENT & LINDA BARABRA ANN		55-609575	
111-24-CCB-012-DM001	39-0002873	WELL	GREENOUGH, GARY F.	DM	7/31/1936	NOT YET DETERMINED	NENENW04 24S 22E	NENENW04 24S 22E	NOT TO EXCEED 1 AF PER YEAR	ARNOLD BROTHER IRREVOCABLE TRUST		39-0002873	
111-24-CCB-013-DM001	39-0003462, 39-0005838	WELL	SWAN, WALTER	DM	8/31/1967	NOT YET DETERMINED	NENENW04 24S 22E	NENENW04 24S 22E	NOT TO EXCEED 1 AF PER YEAR	MCNAIR CAROL S		39-003462	
111-24-DB-001-DM001	39-0011987	WELL	SHARP, MARJORIE C.	DM	3/3/1982	NOT YET DETERMINED	NWSWNW29 23S 24E	NENWNW29 23S 24E	NOT TO EXCEED 1 AF PER YEAR	PAVLOVICH REVOCABLE TRUST		39-0011987	
111-24-DC-001-DM001	39-0012566, 39-0012646	36-0047488	WEISENER, GENE H.	DM	8/30/1930	NOT YET DETERMINED	NENENE24 24S 23E	NESENE24 24S 23E	NOT TO EXCEED 1 AF PER YEAR	LORETO DAVID		39-00012566	
111-24-DC-002-DM001	39-0012566, 39-0012646	36-0047488	WADE, WILLARD JR	DM	4/1/1930	NOT YET DETERMINED	SESESE13 24S 23E	SESESE13 24S 23E	NOT TO EXCEED 1 AF PER YEAR	THOMPSON THOMAS W & FRANKIE A		39-00012646	
111-24-DC-004-DM001	39-0003049	WELL	SLOAN, FRANCES G.	DM	4/21/1977	NOT YET DETERMINED	SESESW18 24S 24E	SWSESW18 24S 24E	NOT TO EXCEED 1 AF PER YEAR	CHAMBERS TERRY		39-003049	
111-24-DC-005-DM001	39-0006568	WELL	VALENZUELA, EDMUNDO E.	DM	12/31/1952	NOT YET DETERMINED	SESESW18 24S 24E	SESESW18 24S 24E	NOT TO EXCEED 1 AF PER YEAR	LOPEZ BRENDA E		39-0006568	
111-24-DC-008-DM001	39-0004328, 39-0004329	WELL	LUNA, MILTON K.	DM	1/1/1960	NOT YET DETERMINED	NWSENE18 24S 24E	NWSENE18 24S 24E	NOT TO EXCEED 1 AF PER YEAR	SWENSN JOHN R		39-0004328	
111-24-DC-009-DM001	39-0004330	WELL	ROLLINS, MARY W.	DM	12/31/1950	NOT YET DETERMINED	NWSENE18 24S 24E	NWSENE18 24S 24E	NOT TO EXCEED 1 AF PER YEAR	SWENSON JOHN R		39-0004330	
111-24-DC-012-DM001	39-0005826	WELL	SHAMRELL, CAROLINE R	DM	12/31/1954	NOT YET DETERMINED	NENENE18 24S 24E	NWNENE18 24S 24E	NOT TO EXCEED 1 AF PER YEAR	PIONKE PAMELA & JIM		39-0005826	
111-24-DC-014-DM001	39-0001487	WELL	MCCONNELL, LEONARD	DM	8/12/1955	NOT YET DETERMINED	NWNWNW17 24S 24E	NENWNW17 24S 24E	NOT TO EXCEED 1 AF PER YEAR	MCCONNELL RUSSELL BRUCE & LILLIAN C		39-0001487	
111-24-DC-015-DM001	39-0001484	WELL	WELLES, ELIZABETH C.	DM	3/2/1964	NOT YET DETERMINED	NWNENW16 24S 24E	NWNENW17 24S 24E	NOT TO EXCEED 1 AF PER YEAR	FREEPORT-MCMORAN CORP		39-0001484	
111-24-DC-017-DM001	39-0000380, 39-0004024	WELL	IRONS, LEE ETAL	DM	9/15/1955	NOT YET DETERMINED	NWNE17 24S 24E	NENWNE17 24S 24E	NOT TO EXCEED 1 AF PER YEAR	GOAR SHEILA ANN		39-000380	
111-24-DC-018-DM001	39-0002900	WELL	DUREE, BEN W & BERTHA	DM	9/6/1974	NOT YET DETERMINED	NWSWSE05 24S 24E	NWSWSE05 24S 24E	NOT TO EXCEED 1 AF PER YEAR	PHILLIPS KENNETH W & LYNN R		39-0002900	
111-24-DC-020-DM001	39-0005768	WELL	GIANETTO, WILLIAM	DM	12/31/1979	NOT YET DETERMINED	NWSWNE05 24S 24E	NWSWNE05 24S 24E	NOT TO EXCEED 1 AF PER YEAR	COOPER A THERESA		39-0005768	



Table 2-4. Potential *De Minimis* Domestic PWRs

PROPOSED WATER RIGHT NUMBER	STATEMENT(S) OF CLAIMANT(S)	BASIS OF WATER RIGHT	OWNERSHIP (WFR LANDOWNER)	TYPE OF USE	PRIORITY DATE	SOURCE OF WATER	PLACE OF USE HSR	PLACE OF USE GIS	QUANTITY	CURRENT LAND OWNERSHIP	SAN PEDRO HSR LESSEE	PRIORITY DATE SOURCE	COMMENTS
111-24-DC-021-DM001	39-0011619	WELL	JACKSON, BEVERLY A.	DM	8/16/1983	NOT YET DETERMINED	SWNESE05 24S 24E	SWNESE05 24S 24E	NOT TO EXCEED 1 AF PER YEAR	SIEGEL RICHARD L		39-0011619	
111-24-DC-022-DM001	39-0004327	WELL	BABBE, JAMES H. & ANN	DM	1/1/1955	NOT YET DETERMINED	SENESE18 24S 24E	SENESE18 24S 24E	NOT TO EXCEED 1 AF PER YEAR	WEISKOPF THOMAS A		39-0004327	
111-24-DC-027-DM001	39-0006468	WELL	HAUBERT, JOHN M.	DM	4/19/1985	NOT YET DETERMINED	NWNWNW17 24S 24E	SWNWNW17 24S 24E	NOT TO EXCEED 1 AF PER YEAR	HOWARD JOEL D		1985 AERIAL PHOTO	
111-24-DD-001-DM001	39-0003124	WELL	SHELLEY, PERRY W.	DM	12/31/1959	NOT YET DETERMINED	NWNENE15 24S 24E	NWNWNE15 24S 24E	NOT TO EXCEED 1 AF PER YEAR	BRADSHAW KENNETH EARL & SUSAN ELIZABETH		39-0003124	
111-24-DD-002-DM001	39-0004056	WELL	PANAGAKOS, ALFRED X.	DM	7/31/1957	NOT YET DETERMINED	NWSWSE10 24S 24E	NWSWSE10 24S 24E	NOT TO EXCEED 1 AF PER YEAR	PANAGAKOS ALFRED X & LIDA M		39-0004056	
111-24-DD-003-DM001	39-0005975	WELL	THOMAS, DAN A., ETUX.	DM	5/20/1958	NOT YET DETERMINED	SESWSE10 24S 24E	SESWSE10 24S 24E	NOT TO EXCEED 1 AF PER YEAR	DODSON JOHN S		39-0005975	
111-24-DD-005-DM001	39-0011559	WELL	FRANCO, JESUS M.	DM	7/1/1981	NOT YET DETERMINED	NWNWNW16 24S 24E	NWNWNW16 24S 24E	NOT TO EXCEED 1 AF PER YEAR	FRANCO JUAN MANUEL & MARIA DEL CARMEN		39-0011559	
<i>San Pedro Riparian National Conservation Area (SPRNCA)</i>													
111-23-AAA-001-DM001	39-0004294	WELL	BLM - SAFFORD DISTRICT	DM	1/1/1962	NOT YET DETERMINED	NESWSW10 23S 22E	SESWSW10 23S 22E	NOT TO EXCEED 1 AF PER YEAR	BLM - SAFFORD DISTRICT		55-623659	
111-23-AAA-001-DM002	39-0012715	WELL	BLM - SAFFORD DISTRICT	DM	12/31/1918	NOT YET DETERMINED	NWNWSE16 23S 22E	NWNWSE16 23S 22E	NOT TO EXCEED 1 AF PER YEAR	BLM - SAFFORD DISTRICT		39-0012715	
111-24-CBB-002-DM001	39-0006019, 39-0006023	WELL	LEHNER, EDWARD F.	DM	7/1/1906	NOT YET DETERMINED	NWNWNE21 23S 22E	NWNWNE21 23S 22E	NOT TO EXCEED 1 AF PER YEAR	BLM - SAFFORD DISTRICT		39-0006019	



**Table 2-5. Potential *De Minimis* Domestic PWRs without SOC**

PROPOSED WATER RIGHT NUMBER	STATEMENT(S) OF CLAIMANT(S)	BASIS OF WATER RIGHT	OWNERSHIP (WFR LANDOWNER)	TYPE OF USE	PRIORITY DATE	SOURCE OF WATER	PLACE OF USE HSR	PLACE OF USE GIS	QUANTITY	CURRENT LAND OWNERSHIP	SAN PEDRO HSR LESSEE	COMMENTS
111-23-007-DM001	NO WATER RIGHT AWARDED	10-0216420.1100, 10-0216421.1100, 10-0224269.1100, 10-0224274.1100	US FOREST SERVICE - CORONADO	DM	NOT EVALUATED	NOT YET DETERMINED	SENE5W11 23S 20E	SENE5W11 23S 20E	NOT TO EXCEED 1 AF PER YEAR	US FOREST SERVICE - CORONADO	MARCO, JOSEPH D.	
111-23-007-DM002	NO WATER RIGHT AWARDED	10-0216420.1100, 10-0216421.1100, 10-0224269.1100, 10-0224274.1100	US FOREST SERVICE - CORONADO	DM	NOT EVALUATED	NOT YET DETERMINED	NWSE5W11 23S 20E	NWSE5W11 23S 20E	NOT TO EXCEED 1 AF PER YEAR	US FOREST SERVICE - CORONADO	MARCO, JOSEPH D.	
111-23-007-DM003	NO WATER RIGHT AWARDED	WELL	US FOREST SERVICE - CORONADO	DM	NOT EVALUATED	NOT YET DETERMINED	SENE6W07 23S 21E	SENE6W07 23S 21E	NOT TO EXCEED 1 AF PER YEAR	US FOREST SERVICE - CORONADO	MARCO, JOSEPH D.	
111-23-052-DM001	NO WATER RIGHT AWARDED	WELL	DON STEWART EVANGL. ASSOC	DM	NOT EVALUATED	NOT YET DETERMINED	NESENE01 24S 21E	NESENE01 24S 21E	NOT TO EXCEED 1 AF PER YEAR	BUERKLE CHARLES		
111-23-052-DM002	NO WATER RIGHT AWARDED	WELL	DON STEWART EVANGL. ASSOC	DM	NOT EVALUATED	NOT YET DETERMINED	NWNWNE01 24S 21E	NWNWNE01 24S 21E	NOT TO EXCEED 1 AF PER YEAR	BUERKLE CHARLES WESLEY REV TR		
111-23-052-DM003	NO WATER RIGHT AWARDED	WELL	DON STEWART EVANGL. ASSOC	DM	NOT EVALUATED	NOT YET DETERMINED	SWNWNNE01 24S 21E	SWNWNNE01 24S 21E	NOT TO EXCEED 1 AF PER YEAR	BUERKLE CHARLES WESLEY REV TR		
111-23-AC-066-DM001	NO WATER RIGHT AWARDED	WELL	COOK, WILLIAM A.	DM	NOT EVALUATED	NOT YET DETERMINED	NENWNW09 23S 21E	NENWNW09 23S 21E	NOT TO EXCEED 1 AF PER YEAR	BECERRA GLORIA		
111-23-AC-067-DM001	NO WATER RIGHT AWARDED	WELL	CHRISTIAN, THOMAS D.	DM	NOT EVALUATED	NOT YET DETERMINED	SWNWNW09 23S 21E	SWNWNW09 23S 21E	NOT TO EXCEED 1 AF PER YEAR	CHRISTIAN THOMAS D & LILLIE M		
111-23-AC-068-DM001	NO WATER RIGHT AWARDED	WELL	HILLEBRAND, LOUIS JR	DM	NOT EVALUATED	NOT YET DETERMINED	SWNWNW09 23S 21E	SENWNW09 23S 21E	NOT TO EXCEED 1 AF PER YEAR	HILLEBRAND LOUIS G JR & REBECCA T		
111-23-AC-069-DM001	NO WATER RIGHT AWARDED	WELL	MAY, GARY G. & LAURA K.	DM	NOT EVALUATED	NOT YET DETERMINED	SWSWNW09 23S 21E	SWSWNW09 23S 21E	NOT TO EXCEED 1 AF PER YEAR	RAPP HOWARD		
111-23-AC-070-DM001	NO WATER RIGHT AWARDED	WELL	MENESES, JESSE A.	DM	NOT EVALUATED	NOT YET DETERMINED	SESWNW09 23S 21E	SESWNW09 23S 21E	NOT TO EXCEED 1 AF PER YEAR	COLVIN MICHAEL A & VICKI L		
111-23-AC-071-DM001	NO WATER RIGHT AWARDED	WELL	LEE, DRURY A	DM	NOT EVALUATED	NOT YET DETERMINED	NENENW09 23S 21E	NENENW09 23S 21E	NOT TO EXCEED 1 AF PER YEAR	LEE DRURY ARNOLD & LORNA GAIL		
111-23-AC-072-DM001	NO WATER RIGHT AWARDED	WELL	WILLIAMS, ANGELA	DM	NOT EVALUATED	NOT YET DETERMINED	SENE6W09 23S 21E	SENE6W09 23S 21E	NOT TO EXCEED 1 AF PER YEAR	ROGERS DUANE & ANNETTE JOYCELYN		
111-23-AC-073-DM001	NO WATER RIGHT AWARDED	WELL	ROMERO, JOSE D.	DM	NOT EVALUATED	NOT YET DETERMINED	NESE6W09 23S 21E	NESE6W09 23S 21E	NOT TO EXCEED 1 AF PER YEAR	HATFIELD MARK ALAN		
111-23-AC-074-DM001	NO WATER RIGHT AWARDED	WELL	CRANE, MICHAEL C.	DM	NOT EVALUATED	NOT YET DETERMINED	SESE6W09 23S 21E	SESE6W09 23S 21E	NOT TO EXCEED 1 AF PER YEAR	DUGAN SHAWN		
111-23-AC-075-DM001	NO WATER RIGHT AWARDED	WELL	KULA, PAUL R JR	DM	NOT EVALUATED	NOT YET DETERMINED	SWSENW09 23S 21E	SWSENW09 23S 21E	NOT TO EXCEED 1 AF PER YEAR	LUDDEN SEAN P & JULLIAN		
111-23-AC-076-DM001	NO WATER RIGHT AWARDED	WELL	PIERCE, TERRY E & FETTERS, JOYCE A.	DM	NOT EVALUATED	NOT YET DETERMINED	NWSE6W09 23S 21E	NWSE6W09 23S 21E	NOT TO EXCEED 1 AF PER YEAR	PIERCE TERRY E		
111-23-AD-034-DM001	NO WATER RIGHT AWARDED	WELL	VALLE, DANIEL M.	DM	NOT EVALUATED	NOT YET DETERMINED	SESW5W11 23S 21E	SESW5W11 23S 21E	NOT TO EXCEED 1 AF PER YEAR	SCRIVEN APRIL		
111-23-AD-057-DM001	NO WATER RIGHT AWARDED	WELL	DAVIS, STANLEY E.	DM	NOT EVALUATED	NOT YET DETERMINED	SENE6E11 23S 21E	SENE6E11 23S 21E	NOT TO EXCEED 1 AF PER YEAR	DAVIS COLLEEN N		
111-23-AD-058-DM001	NO WATER RIGHT AWARDED	WELL	BERRY, SHARON J.	DM	NOT EVALUATED	NOT YET DETERMINED	SWNWNNE11 23S 21E	SWNWNNE11 23S 21E	NOT TO EXCEED 1 AF PER YEAR	BERRY SHARON J		
111-23-AD-065-DM001	NO WATER RIGHT AWARDED	WELL	AHART, CAROL L.	DM	NOT EVALUATED	NOT YET DETERMINED	NWSE5W11 23S 21E	NWSE5W11 23S 21E	NOT TO EXCEED 1 AF PER YEAR	CHITTENDEN JR DONALD E		
111-23-AD-066-DM001	NO WATER RIGHT AWARDED	WELL	WILDERMUTH, ROLF	DM	NOT EVALUATED	NOT YET DETERMINED	NESE5W11 23S 21E	NESE5W11 23S 21E	NOT TO EXCEED 1 AF PER YEAR	BUTT WAYNE A & BONNIE L		
111-23-AD-067-DM001	NO WATER RIGHT AWARDED	WELL	BUTT, WAYNE A.	DM	NOT EVALUATED	NOT YET DETERMINED	SESE5W11 23S 21E	SESE5W11 23S 21E	NOT TO EXCEED 1 AF PER YEAR	BUTT WAYNE A & BONNIE L		
111-23-AD-069-DM001	NO WATER RIGHT AWARDED	WELL	EPPERSON, DENNIS F.	DM	NOT EVALUATED	NOT YET DETERMINED	NWNWSE11 23S 21E	NWNWSE11 23S 21E	NOT TO EXCEED 1 AF PER YEAR	BULFONE LEONARD L		
111-23-AD-074-DM001	NO WATER RIGHT AWARDED	WELL	FINLEY, JOHN L.	DM	NOT EVALUATED	NOT YET DETERMINED	SENE6E11 23S 21E	SENE6E11 23S 21E	NOT TO EXCEED 1 AF PER YEAR	COCHISE COUNTY ASSESSOR (REDACT 9/27/2013)		
111-23-AD-075-DM001	NO WATER RIGHT AWARDED	WELL	CANTRELL, LYLE	DM	NOT EVALUATED	NOT YET DETERMINED	NWNWSW12 23S 21E	NWNWSW12 23S 21E	NOT TO EXCEED 1 AF PER YEAR	SISCO CASEY BRANDON		
111-23-AD-076-DM001	NO WATER RIGHT AWARDED	WELL	GRINDY, SCOTT J.	DM	NOT EVALUATED	NOT YET DETERMINED	SWNWSW12 23S 21E	SWNWSW12 23S 21E	NOT TO EXCEED 1 AF PER YEAR	TALBOT JAMES L & LORINDA S		
111-23-AD-077-DM001	NO WATER RIGHT AWARDED	WELL	RHODES, FRANK A.	DM	NOT EVALUATED	NOT YET DETERMINED	NENWSW12 23S 21E	NENWSW12 23S 21E	NOT TO EXCEED 1 AF PER YEAR	WILSON-TADEMA LIVING TRUST 2009		
111-23-AD-078-DM001	NO WATER RIGHT AWARDED	WELL	MARNINEZ, JOSE P.G.	DM	NOT EVALUATED	NOT YET DETERMINED	SENWSW12 23S 21E	SENWSW12 23S 21E	NOT TO EXCEED 1 AF PER YEAR	MARTINEZ FAM REV LIV TR		
111-23-AD-082-DM001	NO WATER RIGHT AWARDED	WELL	MENDENHALL, DONALD L JR	DM	NOT EVALUATED	NOT YET DETERMINED	NENESW12 23S 21E	NENESW12 23S 21E	NOT TO EXCEED 1 AF PER YEAR	MENDENHALL JR DONALD L & ARLETTE D		
111-23-AD-083-DM001	NO WATER RIGHT AWARDED	WELL	BEAN, JOEL R. & BARBARA	DM	NOT EVALUATED	NOT YET DETERMINED	SENE5W12 23S 21E	SENE5W12 23S 21E	NOT TO EXCEED 1 AF PER YEAR	DIACK JAMES R		
111-23-AD-084-DM001	NO WATER RIGHT AWARDED	WELL	TRUEX, CUTHBERT M.	DM	NOT EVALUATED	NOT YET DETERMINED	SESW5W12 23S 21E	SESW5W12 23S 21E	NOT TO EXCEED 1 AF PER YEAR	HARRIS VICTORIA LYNNE & RUSSELL STEVEN		
111-23-AD-087-DM001	NO WATER RIGHT AWARDED	WELL	QUERY, JAMES D.	DM	NOT EVALUATED	NOT YET DETERMINED	SENWSE12 23S 21E	SENWSE12 23S 21E	NOT TO EXCEED 1 AF PER YEAR	PENNA THOMAS A		





**Table 2-5. Potential *De Minimis* Domestic PWRs without SOC**

PROPOSED WATER RIGHT NUMBER	STATEMENT(S) OF CLAIMANT(S)	BASIS OF WATER RIGHT	OWNERSHIP (WFR LANDOWNER)	TYPE OF USE	PRIORITY DATE	SOURCE OF WATER	PLACE OF USE HSR	PLACE OF USE GIS	QUANTITY	CURRENT LAND OWNERSHIP	SAN PEDRO HSR LESSEE	COMMENTS
111-23-AD-090-DM001	NO WATER RIGHT AWARDED	WELL	DAVIS, CLYDE E.	DM	NOT EVALUATED	NOT YET DETERMINED	SWSESE12 23S 21E	SWSESE12 23S 21E	NOT TO EXCEED 1 AF PER YEAR	BRADY JANET L REVOCABLE LIVING TRUST		
111-23-BD-001-DM001	NO WATER RIGHT AWARDED	WELL	WATKINS, DOROTHEA F.	DM	NOT EVALUATED	NOT YET DETERMINED	SENWNW10 23S 20E	NWNWNW10 23S 20E	NOT TO EXCEED 1 AF PER YEAR	CARLSON ROBERT H & SUSAN S		
111-23-BD-018-DM001	NO WATER RIGHT AWARDED	WELL	HODGSON, VINCENT & SUE D.	DM	NOT EVALUATED	NOT YET DETERMINED	NWSENE03 23S 20E	NWSENE03 23S 20E	NOT TO EXCEED 1 AF PER YEAR	TAYLOR DOCK DAVID & CLYDIA A REV LIV TR		
111-23-BD-019-DM001	NO WATER RIGHT AWARDED	WELL	AVALOS, MELITON R & CONNIE N	DM	NOT EVALUATED	NOT YET DETERMINED	NESENE03 23S 20E	NESENE03 23S 20E	NOT TO EXCEED 1 AF PER YEAR	AVALOS DAVID J		
111-23-BD-020-DM001	NO WATER RIGHT AWARDED	WELL	SPARKS, HENRY M	DM	NOT EVALUATED	NOT YET DETERMINED	NWNESE03 23S 20E	NWNESE03 23S 20E	NOT TO EXCEED 1 AF PER YEAR	MOUNT-HALL REVOCABLE TRUST		
111-23-BD-021-DM001	NO WATER RIGHT AWARDED	WELL	DURAN, KATHRYN R.	DM	NOT EVALUATED	NOT YET DETERMINED	SENEW03 23S 20E	SENEW03 23S 20E	NOT TO EXCEED 1 AF PER YEAR	HECOX CHARLES E		
111-23-BD-022-DM001	NO WATER RIGHT AWARDED	WELL	BAYS, GEORGE N.	DM	NOT EVALUATED	NOT YET DETERMINED	SENEW03 23S 20E	SWNESW03 23S 20E	NOT TO EXCEED 1 AF PER YEAR	BAYS GEORGE N & PATRICIA A		
111-23-BD-023-DM001	NO WATER RIGHT AWARDED	WELL	THATCHER, SUSAN RAE	DM	NOT EVALUATED	NOT YET DETERMINED	NWSESW03 23S 20E	SWNESW03 23S 20E	NOT TO EXCEED 1 AF PER YEAR	THATCHER SUSAN RAE		
111-23-BD-024-DM001	NO WATER RIGHT AWARDED	WELL	MULDOWNY, JAMES & SHARON	DM	NOT EVALUATED	NOT YET DETERMINED	NWNENW10 23S 20E	NWNENW10 23S 20E	NOT TO EXCEED 1 AF PER YEAR	GABBERT JR HAROLD E & JUDY E		
111-23-BD-026-DM001	NO WATER RIGHT AWARDED	WELL	FENIMORE, ED S.	DM	NOT EVALUATED	NOT YET DETERMINED	SENWNW03 23S 20E	NENWNW10 23S 20E	NOT TO EXCEED 1 AF PER YEAR	CLOSE SALLY E		
111-23-BD-027-DM001	NO WATER RIGHT AWARDED	WELL	HON, ADRIAN C. & ALTA L.	DM	NOT EVALUATED	NOT YET DETERMINED	NWSWNW10 23S 20E	NWSWNW10 23S 20E	NOT TO EXCEED 1 AF PER YEAR	DESANTIS LIVING TRUST		
111-23-BD-028-DM001	NO WATER RIGHT AWARDED	WELL	PETRELLO, JOHN F JR	DM	NOT EVALUATED	NOT YET DETERMINED	SESESE12 23S 20E	SESESE12 23S 20E	NOT TO EXCEED 1 AF PER YEAR	BUDNY TOM & MANDY		
111-23-BD-030-DM001	NO WATER RIGHT AWARDED	WELL	BUTTKE, JAMES F.	DM	NOT EVALUATED	NOT YET DETERMINED	NWSESE12 23S 20E	NWSESE12 23S 20E	NOT TO EXCEED 1 AF PER YEAR	JERMUNDSON & BUTTKE FAMILY TRUST		
111-23-BD-031-DM001	NO WATER RIGHT AWARDED	WELL	HARRIS, BOBBY G	DM	NOT EVALUATED	NOT YET DETERMINED	NWSESE12 23S 20E	NWSESE12 23S 20E	NOT TO EXCEED 1 AF PER YEAR	LAMONTAGNE NANCY & LEONARD M ROSE		
111-23-BD-032-DM001	NO WATER RIGHT AWARDED	WELL	KLEINKNECHT, ALBERT G.	DM	NOT EVALUATED	NOT YET DETERMINED	NENENW12 23S 20E	NENENW12 23S 20E	NOT TO EXCEED 1 AF PER YEAR	KNAEBLE G LEE & CAROL A		
111-23-BD-033-DM001	NO WATER RIGHT AWARDED	WELL	HARRISON, WILLIAM H	DM	NOT EVALUATED	NOT YET DETERMINED	NENENW12 23S 20E	NENENW12 23S 20E	NOT TO EXCEED 1 AF PER YEAR	PARMER MARTIN BRUCE		
111-23-BD-034-DM001	NO WATER RIGHT AWARDED	WELL	RUTERMAN, RICHARD A.	DM	NOT EVALUATED	NOT YET DETERMINED	NENENW12 23S 20E	NENENW12 23S 20E	NOT TO EXCEED 1 AF PER YEAR	RUTERMAN RICHARD A		
111-23-BD-036-DM001	NO WATER RIGHT AWARDED	WELL	MCGOVERN, JOHN B.	DM	NOT EVALUATED	NOT YET DETERMINED	NWSENW12 23S 20E	SWNENW12 23S 20E	NOT TO EXCEED 1 AF PER YEAR	MCGOVERN JOHN B		
111-23-BD-038-DM001	NO WATER RIGHT AWARDED	WELL	ALLEN, ELSA B.	DM	NOT EVALUATED	NOT YET DETERMINED	NESWNW12 23S 20E	NWSENW12 23S 20E	NOT TO EXCEED 1 AF PER YEAR	TORRES ELSA REVOCABLE TRUST AGREEMENT		
111-23-BD-041-DM001	NO WATER RIGHT AWARDED	WELL	DOSER, THOMAS & JUDITH	DM	NOT EVALUATED	NOT YET DETERMINED	NENENE11 23S 20E	SENEE11 23S 20E	NOT TO EXCEED 1 AF PER YEAR	DOSER TODD A REV LIV TRUST		
111-23-BD-048-DM001	NO WATER RIGHT AWARDED	WELL	WHITWORTH, WILLIAM R.	DM	NOT EVALUATED	NOT YET DETERMINED	NWSENE01 23S 20E	NWSENE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	WHITWORTH WILLIAM R & ALMA K		
111-23-BD-049-DM001	NO WATER RIGHT AWARDED	WELL	STOKES, BONITA B	DM	NOT EVALUATED	NOT YET DETERMINED	NESWNE01 23S 20E	NESWNE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	STOKES JOHN JEFFERY JR TRUST AGREEMENT		
111-23-BD-053-DM001	NO WATER RIGHT AWARDED	WELL	GRIFFIN, LEONARD F.	DM	NOT EVALUATED	NOT YET DETERMINED	NWSENE01 23S 20E	NWSENE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	POTTIER GERALD JOSEPH III		
111-23-BD-054-DM001	NO WATER RIGHT AWARDED	WELL	GREER, STANFORD & DORIS	DM	NOT EVALUATED	NOT YET DETERMINED	SESENE01 23S 20E	SESENE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	GREER DEBRA & GARRY		
111-23-BD-055-DM001	NO WATER RIGHT AWARDED	WELL	DRYER, TERRANCE M.	DM	NOT EVALUATED	NOT YET DETERMINED	SESENE01 23S 20E	NENESE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	DRYER LE HUYNH		
111-23-BD-058-DM001	NO WATER RIGHT AWARDED	WELL	HALE, WILLIAM H JR & MCCLURE, N. BERNICE	DM	NOT EVALUATED	NOT YET DETERMINED	SWSENE01 23S 20E	SWSENE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	MIRABELL LLC		
111-23-BD-059-DM001	NO WATER RIGHT AWARDED	WELL	CLEMENTS, FRED G.	DM	NOT EVALUATED	NOT YET DETERMINED	SESWNE01 23S 20E	SESWNE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	JACOBS PATRICK M		
111-23-BD-061-DM001	NO WATER RIGHT AWARDED	WELL	DOSER, THOMAS & JUDITH	DM	NOT EVALUATED	NOT YET DETERMINED	NENESE01 23S 20E	NENESE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	HALL RICHARD S		
111-23-BD-063-DM001	NO WATER RIGHT AWARDED	WELL	PIETTE, JOSEPH G.	DM	NOT EVALUATED	NOT YET DETERMINED	SENWSE01 23S 20E	SENWSE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	PIETTE JOSEPH G & VERONICA P		
111-23-BD-069-DM001	NO WATER RIGHT AWARDED	WELL	MERRITT, GRACE L.	DM	NOT EVALUATED	NOT YET DETERMINED	SENESE01 23S 20E	SENESE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	SCOTT BOBBY L & JENEAL R		
111-23-BD-070-DM001	NO WATER RIGHT AWARDED	WELL	KATERIDGE, GEORGE E.	DM	NOT EVALUATED	NOT YET DETERMINED	SENESE01 23S 20E	SENESE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	KATERIDGE PATRICIA REVOCABLE TRUST		
111-23-BD-073-DM001	NO WATER RIGHT AWARDED	WELL	PAXTON, FRED L.	DM	NOT EVALUATED	NOT YET DETERMINED	NESESE01 23S 20E	NESESE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	ALLOGGIO INVESTMENTS LLC		
111-23-BD-074-DM001	NO WATER RIGHT AWARDED	WELL	NETHERBY, GEORGE & KEVIN, ANDREW	DM	NOT EVALUATED	NOT YET DETERMINED	NESESE01 23S 20E	NESESE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	ROMO REYNALDO & ELVIA		
111-23-BD-075-DM001	NO WATER RIGHT AWARDED	WELL	MILLER, JAMES W & DELANEY, DANNY W	DM	NOT EVALUATED	NOT YET DETERMINED	NESESE01 23S 20E	NESESE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	SPATARO NOAH M & DANIELLE J		
111-23-BD-077-DM001	NO WATER RIGHT AWARDED	WELL	REDING, CHARLES L.	DM	NOT EVALUATED	NOT YET DETERMINED	NESESE01 23S 20E	NESESE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	STOKES JOHN J		
111-23-BD-078-DM001	NO WATER RIGHT AWARDED	WELL	KEITH, CLINTON L.	DM	NOT EVALUATED	NOT YET DETERMINED	NESESE01 23S 20E	NESESE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	VOGT EUGENE H		



**Table 2-5. Potential *De Minimis* Domestic PWRs without SOC**

PROPOSED WATER RIGHT NUMBER	STATEMENT(S) OF CLAIMANT(S)	BASIS OF WATER RIGHT	OWNERSHIP (WFR LANDOWNER)	TYPE OF USE	PRIORITY DATE	SOURCE OF WATER	PLACE OF USE HSR	PLACE OF USE GIS	QUANTITY	CURRENT LAND OWNERSHIP	SAN PEDRO HSR LESSEE	COMMENTS
111-23-BD-079-DM001	NO WATER RIGHT AWARDED	WELL	STOKES, BONITA B	DM	NOT EVALUATED	NOT YET DETERMINED	SESESE01 23S 20E	SESESE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	STOKES JOHN JEFFERY JR TRUST AGREEMENT		
111-23-BD-080-DM001	NO WATER RIGHT AWARDED	WELL	B-R CONSTRUCTORS	DM	NOT EVALUATED	NOT YET DETERMINED	SESESE01 23S 20E	SESESE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	KASPAREK TERRY MARK & MARGARET DODD		
111-23-BD-083-DM001	NO WATER RIGHT AWARDED	WELL	WILKINS, PETER J.	DM	NOT EVALUATED	NOT YET DETERMINED	NESWSE01 23S 20E	NESWSE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	WILKINS PETER J & CAROLYN E		
111-23-BD-086-DM001	NO WATER RIGHT AWARDED	WELL	CARON, SAMUEL R.	DM	NOT EVALUATED	NOT YET DETERMINED	SWSESE01 23S 20E	SWSESE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	CARON SAMUEL R & MARY T		
111-23-BD-087-DM001	NO WATER RIGHT AWARDED	WELL	O'BRIEN, CLOYDE	DM	NOT EVALUATED	NOT YET DETERMINED	SESWSE01 23S 20E	SESWSE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	O BRIEN CONSTANCE		
111-23-BD-091-DM001	NO WATER RIGHT AWARDED	WELL	GOJKOVICH, LETHA F	DM	NOT EVALUATED	NOT YET DETERMINED	NESWSE01 23S 20E	NESWSE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	MORRISON TERESA M		
111-23-BD-093-DM001	NO WATER RIGHT AWARDED	WELL	NICOLAIS, JOHN F & MANAHAN, GAIL C.	DM	NOT EVALUATED	NOT YET DETERMINED	SESWSE01 23S 20E	SWSWSE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	NICOLAIS JOHN F LIVING TRUST		
111-23-BD-095-DM001	NO WATER RIGHT AWARDED	WELL	GRUENBERG, RAY F.	DM	NOT EVALUATED	NOT YET DETERMINED	SWNWSE01 23S 20E	SWNWSE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	THATCHER SUSAN RAE		
111-23-BD-096-DM001	NO WATER RIGHT AWARDED	WELL	SARULLA, FRANK J. LIBERTY	DM	NOT EVALUATED	NOT YET DETERMINED	SESESE01 23S 20E	SESESE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	P & N ENTERPRISES INC		
111-23-BD-097-DM001	NO WATER RIGHT AWARDED	WELL	POREP, CARLTON & ALICE L.	DM	NOT EVALUATED	NOT YET DETERMINED	NESENW01 23S 20E	NESENW01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	THUMA TRUST		
111-23-BD-098-DM001	NO WATER RIGHT AWARDED	WELL	YERMAL, JOHN & CAROL J.	DM	NOT EVALUATED	NOT YET DETERMINED	NESENW01 23S 20E	NWSENW01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	TINKLER DENNIS M		
111-23-BD-099-DM001	NO WATER RIGHT AWARDED	WELL	DEAN, LESLIE B.	DM	NOT EVALUATED	NOT YET DETERMINED	NESENW01 23S 20E	NWSENW01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	BATES NORMAN W & IRENE		
111-23-BD-103-DM001	NO WATER RIGHT AWARDED	WELL	DAVIS, MARVIN H.	DM	NOT EVALUATED	NOT YET DETERMINED	NWSWNW01 23S 20E	NWSWNW01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	DAVIS GLENN R		
111-23-BD-106-DM001	NO WATER RIGHT AWARDED	WELL	A B MARKETING, INC.	DM	NOT EVALUATED	NOT YET DETERMINED	NENENE01 23S 20E	NENENE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	FABEL ROBERT M & SUSAN V		
111-23-BD-107-DM001	NO WATER RIGHT AWARDED	WELL	NEWMAN, REX A.	DM	NOT EVALUATED	NOT YET DETERMINED	SWSWNW02 23S 20E	SWSWNW02 23S 20E	NOT TO EXCEED 1 AF PER YEAR	NEWMAN REX ALLEN LIVING TRUST		
111-23-BD-112-DM001	NO WATER RIGHT AWARDED	WELL	MAHANAY, DONALD V.	DM	NOT EVALUATED	NOT YET DETERMINED	NESENW12 23S 20E	SEENENW12 23S 20E	NOT TO EXCEED 1 AF PER YEAR	BRODKIN HENRY M & PRISCILLA J		
111-23-BD-113-DM001	NO WATER RIGHT AWARDED	WELL	BARRETT, MINNA	DM	NOT EVALUATED	NOT YET DETERMINED	NWSESE01 23S 20E	NWSESE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	CAMPBELL CAROL S		
111-23-BD-114-DM001	NO WATER RIGHT AWARDED	WELL	CROTHERS, DEBRA R.	DM	NOT EVALUATED	NOT YET DETERMINED	NWSESE01 23S 20E	NWSESE01 23S 20E	NOT TO EXCEED 1 AF PER YEAR	WAY LOUIS A & JOAN A		
111-23-DA-020-DM001	NO WATER RIGHT AWARDED	WELL	VAN KIRK, EDWIN J & POWERS, HENRY W JR	DM	NOT EVALUATED	NOT YET DETERMINED	SWSWNE25 23S 21E	SWSWNE25 23S 21E	NOT TO EXCEED 1 AF PER YEAR	VAN KIRK ANNA		
111-23-DA-024-DM001	NO WATER RIGHT AWARDED	WELL	KELLY, JIM L. & MARY ANN	DM	NOT EVALUATED	NOT YET DETERMINED	SWNENE35 23S 21E	SENEENE35 23S 21E	NOT TO EXCEED 1 AF PER YEAR	KING'S TERRACE LLC		
111-23-DAA-001-DM002	NO WATER RIGHT AWARDED	WELL	TENNECO ARIZONA PROPERTY CORPORATION	DM	NOT EVALUATED	NOT YET DETERMINED	SESENW20 23S 22E	SWSWNE20 23S 22E	NOT TO EXCEED 1 AF PER YEAR	E J FRIEDMAN BISBEE ENTERPRISES LLC		
111-23-DB-002-DM001	NO WATER RIGHT AWARDED	20-0029205	SCUDELLA, HARRY T.	DM	NOT EVALUATED	NOT YET DETERMINED	NESENE19 23S 21E	NESENE19 23S 21E	NOT TO EXCEED 1 AF PER YEAR	FERGUSON DANIEL A & CINDY JO E		
111-23-DB-003-DM001	NO WATER RIGHT AWARDED	20-0029205	MOGENSON, CHRISTEL	DM	NOT EVALUATED	NOT YET DETERMINED	NENENW20 23S 21E	NWNENW20 23S 21E	NOT TO EXCEED 1 AF PER YEAR	MACONNELL MICHAEL E		
111-23-DB-021-DM001	NO WATER RIGHT AWARDED	WELL	ORTEGA, NATALIA E.	DM	NOT EVALUATED	NOT YET DETERMINED	NWNENE19 23S 21E	SWSESE18 23S 21E	NOT TO EXCEED 1 AF PER YEAR	TRI STATE ACQUISITION LLC		
111-23-DB-022-DM001	NO WATER RIGHT AWARDED	WELL	BOHNER, REX A.	DM	NOT EVALUATED	NOT YET DETERMINED	NWNENE19 23S 21E	NWNENE19 23S 21E	NOT TO EXCEED 1 AF PER YEAR	MORIN ROBERT R		
111-23-DB-024-DM001	NO WATER RIGHT AWARDED	WELL	ROGERS, RICHARD E	DM	NOT EVALUATED	NOT YET DETERMINED	NWSENE19 23S 21E	NWSENE19 23S 21E	NOT TO EXCEED 1 AF PER YEAR	DUNN JEFFREY P & JOSEPHINE M		
111-23-DB-026-DM001	NO WATER RIGHT AWARDED	WELL	SINCLAIR, INGEBORG T.	DM	NOT EVALUATED	NOT YET DETERMINED	NESENE19 23S 21E	NESENE19 23S 21E	NOT TO EXCEED 1 AF PER YEAR	WALDMANN DAVID L & MARIA G REV LIV TRUST		
111-23-DB-027-DM001	NO WATER RIGHT AWARDED	WELL	SIBRAVA, JOAN F.S.	DM	NOT EVALUATED	NOT YET DETERMINED	NESENE19 23S 21E	NESENE19 23S 21E	NOT TO EXCEED 1 AF PER YEAR	WALDMANN DAVID L & MARIA G REV LIV TRUST		
111-23-DB-028-DM001	NO WATER RIGHT AWARDED	WELL	DAVIDSON, DENNIS C.	DM	NOT EVALUATED	NOT YET DETERMINED	NESENE19 23S 21E	NESENE19 23S 21E	NOT TO EXCEED 1 AF PER YEAR	COLEMAN PAUL		
111-23-DB-031-DM001	NO WATER RIGHT AWARDED	WELL	DIPPLE, CHARLES H.	DM	NOT EVALUATED	NOT YET DETERMINED	NESWNE19 23S 21E	NWSWNE19 23S 21E	NOT TO EXCEED 1 AF PER YEAR	TUCKER PHILIP D & MARCIA G		
111-23-DB-032-DM001	NO WATER RIGHT AWARDED	WELL	DE PEW, DANIEL L.	DM	NOT EVALUATED	NOT YET DETERMINED	NESWNE19 23S 21E	NESWNE19 23S 21E	NOT TO EXCEED 1 AF PER YEAR	FERGUSON CHARLES N		
111-23-DB-036-DM001	NO WATER RIGHT AWARDED	WELL	BROWN, STEVEN N.	DM	NOT EVALUATED	NOT YET DETERMINED	NENWNW20 23S 21E	NENWNW20 23S 21E	NOT TO EXCEED 1 AF PER YEAR	BROWN STEVEN N & JENNIFER J		
111-23-DB-041-DM001	NO WATER RIGHT AWARDED	WELL	LYTLE, THOMAS W & MARY L.	DM	NOT EVALUATED	NOT YET DETERMINED	SWSWSW17 23S 21E	SWSWSW17 23S 21E	NOT TO EXCEED 1 AF PER YEAR	LYTLE MARY L		
111-23-DB-043-DM001	NO WATER RIGHT AWARDED	WELL	HOSSE, DOUGLAS E	DM	NOT EVALUATED	NOT YET DETERMINED	NENWSW17 23S 21E	NENWSW17 23S 21E	NOT TO EXCEED 1 AF PER YEAR	GUILMETTE JOHN E & JANETTE M		
111-23-DB-045-DM001	NO WATER RIGHT AWARDED	WELL	PREBLE, STEPHEN J.	DM	NOT EVALUATED	NOT YET DETERMINED	NESWNW17 23S 21E	NESWNW17 23S 21E	NOT TO EXCEED 1 AF PER YEAR	MEALY EDWARD JR & LETTICIA		



**Table 2-5. Potential *De Minimis* Domestic PWRs without SOC**

PROPOSED WATER RIGHT NUMBER	STATEMENT(S) OF CLAIMANT(S)	BASIS OF WATER RIGHT	OWNERSHIP (WFR LANDOWNER)	TYPE OF USE	PRIORITY DATE	SOURCE OF WATER	PLACE OF USE HSR	PLACE OF USE GIS	QUANTITY	CURRENT LAND OWNERSHIP	SAN PEDRO HSR LESSEE	COMMENTS
111-23-DB-046-DM001	NO WATER RIGHT AWARDED	WELL	BOCZAR, MARCIA A.	DM	NOT EVALUATED	NOT YET DETERMINED	NWSWNW17 23S 21E	NWSWNW17 23S 21E	NOT TO EXCEED 1 AF PER YEAR	IGOT REAL ESTATE HOLDINGS LLC		
111-23-DB-047-DM001	NO WATER RIGHT AWARDED	WELL	SHOEMAKER, RAYMOND B.	DM	NOT EVALUATED	NOT YET DETERMINED	NWSWNW17 23S 21E	NWSWNW17 23S 21E	NOT TO EXCEED 1 AF PER YEAR	FEDERAL HOME LOAN MORTGAGE CORPORATION		
111-23-DB-048-DM001	NO WATER RIGHT AWARDED	WELL	CLAY, CATHERINE R.	DM	NOT EVALUATED	NOT YET DETERMINED	SWSWNW17 23S 21E	SWSWNW17 23S 21E	NOT TO EXCEED 1 AF PER YEAR	VINCENT MICHAEL R		
111-23-DB-051-DM001	NO WATER RIGHT AWARDED	WELL	COMBS, ESTRELLA	DM	NOT EVALUATED	NOT YET DETERMINED	NWSWNW17 23S 21E	NWSWNW17 23S 21E	NOT TO EXCEED 1 AF PER YEAR	COMBS ESTELLA		
111-23-DB-052-DM001	NO WATER RIGHT AWARDED	WELL	BAGGETT, DAN D.	DM	NOT EVALUATED	NOT YET DETERMINED	NWSWNW17 23S 21E	NWSWNW17 23S 21E	NOT TO EXCEED 1 AF PER YEAR	THOMAS DEREK		
111-23-DB-053-DM001	NO WATER RIGHT AWARDED	WELL	WALKER, JACK D. & JANICE	DM	NOT EVALUATED	NOT YET DETERMINED	SWSWNW17 23S 21E	SWSWNW17 23S 21E	NOT TO EXCEED 1 AF PER YEAR	PETRIE LEONARD & CARLEEN		
111-23-DB-058-DM001	NO WATER RIGHT AWARDED	WELL	DAKLEY, JOHN & JUDITH	DM	NOT EVALUATED	NOT YET DETERMINED	SENWSW32 23S 21E	SENWSW32 23S 21E	NOT TO EXCEED 1 AF PER YEAR	MCCLOSKEY SHARON A		
111-23-DB-065-DM001	NO WATER RIGHT AWARDED	WELL	CARRILLO, LYNNE	DM	NOT EVALUATED	NOT YET DETERMINED	SENE32 23S 21E	SENE32 23S 21E	NOT TO EXCEED 1 AF PER YEAR	CARRILLO LYNNE		
111-23-DB-069-DM001	NO WATER RIGHT AWARDED	WELL	SAATHOFF, ERNEST A.	DM	NOT EVALUATED	NOT YET DETERMINED	SWNESE32 23S 21E	SWNESE32 23S 21E	NOT TO EXCEED 1 AF PER YEAR	NEVILLES JOHN & AMELIA		
111-23-DB-070-DM001	NO WATER RIGHT AWARDED	WELL	DELK, JAMES R. & RITA M.	DM	NOT EVALUATED	NOT YET DETERMINED	NESESE32 23S 21E	NESESE32 23S 21E	NOT TO EXCEED 1 AF PER YEAR	DELK JAMES R & RITA M		
111-23-DB-071-DM001	NO WATER RIGHT AWARDED	WELL	GRAF, STANLEY T. & SHARON	DM	NOT EVALUATED	NOT YET DETERMINED	NWSESE32 23S 21E	NWSESE32 23S 21E	NOT TO EXCEED 1 AF PER YEAR	LOOMIS RICHARD B & PATRICIA L		
111-23-DB-076-DM001	NO WATER RIGHT AWARDED	WELL	NETHERBY, KEVIN A.	DM	NOT EVALUATED	NOT YET DETERMINED	SWSESE32 23S 21E	SWSESE32 23S 21E	NOT TO EXCEED 1 AF PER YEAR	LEMAY KAREN A		
111-23-DB-078-DM001	NO WATER RIGHT AWARDED	WELL	RYAN, DOROTHY F.	DM	NOT EVALUATED	NOT YET DETERMINED	SWSESE32 23S 21E	SWSESE32 23S 21E	NOT TO EXCEED 1 AF PER YEAR	LEMAY KAREN A		
111-23-DB-080-DM001	NO WATER RIGHT AWARDED	WELL	BROWN, HAROLD E.	DM	NOT EVALUATED	NOT YET DETERMINED	SWSWSE32 23S 21E	SWSWSE32 23S 21E	NOT TO EXCEED 1 AF PER YEAR	BROWN TRUST		
111-23-DB-082-DM001	NO WATER RIGHT AWARDED	WELL	DOUGLAS, GORDON W.	DM	NOT EVALUATED	NOT YET DETERMINED	NWSWSE32 23S 21E	NWSWSE32 23S 21E	NOT TO EXCEED 1 AF PER YEAR	SCHWALBACH BEN W & PATRICIA S WOOD		
111-23-DB-083-DM001	NO WATER RIGHT AWARDED	WELL	BURCKHARDT, MICHAEL	DM	NOT EVALUATED	NOT YET DETERMINED	NWSWSE32 23S 21E	NWSWSE32 23S 21E	NOT TO EXCEED 1 AF PER YEAR	GIBSON MARK S & ELIZABETH A		
111-23-DB-085-DM001	NO WATER RIGHT AWARDED	WELL	KEYS, LESTER & LA RUE	DM	NOT EVALUATED	NOT YET DETERMINED	SESWSE32 23S 21E	SESWSE32 23S 21E	NOT TO EXCEED 1 AF PER YEAR	BINFORD DANA LYNN		
111-23-DB-087-DM001	NO WATER RIGHT AWARDED	WELL	SIERRA VISTA REALTY, INC.	DM	NOT EVALUATED	NOT YET DETERMINED	SESWNE30 23S 21E	NWNWSE30 23S 21E	NOT TO EXCEED 1 AF PER YEAR	J&G INVESTMENT LP		
111-23-DD-008-DM001	NO WATER RIGHT AWARDED	WELL	HAYS, ISABELLE & GARTON, JEFFREY	DM	NOT EVALUATED	NOT YET DETERMINED	NESWNW05 24S 22E	NWSWNW05 24S 22E	NOT TO EXCEED 1 AF PER YEAR	GALLOWAY BRET A		
111-23-DD-021-DM001	NO WATER RIGHT AWARDED	WELL	BROWN, NATE & JOYCE CLEMENT, BARBARA LEE	DM	NOT EVALUATED	NOT YET DETERMINED	NWSENE12 24S 21E	NWSENE12 24S 21E	NOT TO EXCEED 1 AF PER YEAR	CARLSON LESLIE		
111-23-DD-022-DM001	NO WATER RIGHT AWARDED	WELL	SELF, DON L.	DM	NOT EVALUATED	NOT YET DETERMINED	NWNENW18 24S 22E	NWNENW18 24S 22E	NOT TO EXCEED 1 AF PER YEAR	BARRON KENNETH E LIVING TRUST		
111-23-DD-023-DM001	NO WATER RIGHT AWARDED	WELL	COULTER, GORDON H.	DM	NOT EVALUATED	NOT YET DETERMINED	NWNWNW17 24S 22E	NWNWNW17 24S 22E	NOT TO EXCEED 1 AF PER YEAR	WITT ORIN Q & JANET M		
111-24-039-DM001	NO WATER RIGHT AWARDED	WELL	PIONEER TRUST COMPANY OF ARIZONA	DM	NOT EVALUATED	NOT YET DETERMINED	SWSENE01 24S 22E	SWSWNW01 24S 22E	NOT TO EXCEED 1 AF PER YEAR	LADD JOHN W & JO BETH S		
111-24-054-DM001	NO WATER RIGHT AWARDED	WELL	MAUL, RICHARD A.	DM	NOT EVALUATED	NOT YET DETERMINED	NWNENE27 23S 23E	NWNWNE27 23S 23E	NOT TO EXCEED 1 AF PER YEAR	PETERSON RICHARD MAUL & LANS (2)		
111-24-056-DM001	NO WATER RIGHT AWARDED	WELL	PRINCE, LOUIS, ET AL	DM	NOT EVALUATED	NOT YET DETERMINED	SESENEW05 24S 23E	SESENEW05 24S 23E	NOT TO EXCEED 1 AF PER YEAR	THE SAN JOSE RANCH INC		
111-24-AC-014-DM001	NO WATER RIGHT AWARDED	WELL	BROWN, KENNEDY F.	DM	NOT EVALUATED	NOT YET DETERMINED	SWNENE01 23S 23E	SENWNE01 23S 23E	NOT TO EXCEED 1 AF PER YEAR	MORRELL SYLVIA S		
111-24-AC-015-DM001	NO WATER RIGHT AWARDED	WELL	LACLAIR, CHARLES H.	DM	NOT EVALUATED	NOT YET DETERMINED	SWNENE01 23S 23E	SWNENE01 23S 23E	NOT TO EXCEED 1 AF PER YEAR	LACLAIR CHARLES H & CLAUDIA D		
111-24-BC-003-DM001	NO WATER RIGHT AWARDED	WELL	BLASCHKE, LARRY D.	DM	NOT EVALUATED	NOT YET DETERMINED	NESENEW02 23S 22E	NESENEW02 23S 22E	NOT TO EXCEED 1 AF PER YEAR	BLASCHKE THERESA		
111-24-BD-009-DM001	NO WATER RIGHT AWARDED	WELL	HAYMORE, J. ARNOLD	DM	NOT EVALUATED	NOT YET DETERMINED	SWSWSW06 23S 23E	SWSWSW06 23S 23E	NOT TO EXCEED 1 AF PER YEAR	SOLEWIN GEORGE E & ROZ		
111-24-CA-004-DM001	NO WATER RIGHT AWARDED	WELL	SEIBOLD, WILLIAM F.	DM	NOT EVALUATED	NOT YET DETERMINED	SWSWSW30 23S 23E	SWSWSW30 23S 23E	NOT TO EXCEED 1 AF PER YEAR	DEAN JEANNETTE		
111-24-CA-005-DM001	NO WATER RIGHT AWARDED	WELL	WOOD, EARL & DEBORAH L.	DM	NOT EVALUATED	NOT YET DETERMINED	SWSWNE31 23S 23E	SWSWNE31 23S 23E	NOT TO EXCEED 1 AF PER YEAR	COCHISE COUNTY ASSESSOR (REDACT 9/2/2015)		
111-24-CA-010-DM001	NO WATER RIGHT AWARDED	WELL	SMITH, NORMA JEAN	DM	NOT EVALUATED	NOT YET DETERMINED	SWNWNW34 23S 23E	SWNWNW34 23S 23E	NOT TO EXCEED 1 AF PER YEAR	SCHILLING THOMAS R		
111-24-CA-011-DM001	NO WATER RIGHT AWARDED	WELL	WILKES, STEPHEN V	DM	NOT EVALUATED	NOT YET DETERMINED	NENWSW34 23S 23E	NENWSW34 23S 23E	NOT TO EXCEED 1 AF PER YEAR	WILKES STEPHEN V		
111-24-CA-012-DM001	NO WATER RIGHT AWARDED	WELL	ANDREGG, SHIRLEY ANN R.	DM	NOT EVALUATED	NOT YET DETERMINED	SWNWSW34 23S 23E	SENWSW34 23S 23E	NOT TO EXCEED 1 AF PER YEAR	RANKIN SHIRLEY ANN		
111-24-CA-013-DM001	NO WATER RIGHT AWARDED	WELL	CRABTREE, ROBERT M.	DM	NOT EVALUATED	NOT YET DETERMINED	SENWSW34 23S 23E	SWNWSW34 23S 23E	NOT TO EXCEED 1 AF PER YEAR	CRABTREE ROBERT M & RHONDA D		
111-24-CA-014-DM001	NO WATER RIGHT AWARDED	WELL	PIPKORN, RANDALL E.	DM	NOT EVALUATED	NOT YET DETERMINED	NESWSW34 23S 23E	NESWSW34 23S 23E	NOT TO EXCEED 1 AF PER YEAR	PIPKORN RANDALL E & NANCY		





Table 2-5. Potential *De Minimis* Domestic PWRs without SOC

PROPOSED WATER RIGHT NUMBER	STATEMENT(S) OF CLAIMANT(S)	BASIS OF WATER RIGHT	OWNERSHIP (WFR LANDOWNER)	TYPE OF USE	PRIORITY DATE	SOURCE OF WATER	PLACE OF USE HSR	PLACE OF USE GIS	QUANTITY	CURRENT LAND OWNERSHIP	SAN PEDRO HSR LESSEE	COMMENTS
111-24-CA-015-DM001	NO WATER RIGHT AWARDED	WELL	PICKETT, PAUL B	DM	NOT EVALUATED	NOT YET DETERMINED	NWNESW34 23S 23E	NWNESW34 23S 23E	NOT TO EXCEED 1 AF PER YEAR	ARBITMAN STEVEN & KATHRYN WATTS		
111-24-CA-016-DM001	NO WATER RIGHT AWARDED	WELL	WHITE, GEORGE R.	DM	NOT EVALUATED	NOT YET DETERMINED	SWNESW34 23S 23E	SENESW34 23S 23E	NOT TO EXCEED 1 AF PER YEAR	WHITE GEORGE R & ALICE K		
111-24-CA-017-DM001	NO WATER RIGHT AWARDED	WELL	HUMBOLT, HARRY D.	DM	NOT EVALUATED	NOT YET DETERMINED	SESENW34 23S 23E	SESENW34 23S 23E	NOT TO EXCEED 1 AF PER YEAR	HUMBOLT HARRY D & SUSAN D		
111-24-CA-018-DM001	NO WATER RIGHT AWARDED	WELL	WELLER, JAMES C. & JAN	DM	NOT EVALUATED	NOT YET DETERMINED	NENWSE28 23S 23E	NENWSE28 23S 23E	NOT TO EXCEED 1 AF PER YEAR	WELLER JAMES C & JAN		
111-24-CB-005-DM001	NO WATER RIGHT AWARDED	WELL	PIEZZI, CHARLES, ET AL.	DM	NOT EVALUATED	NOT YET DETERMINED	SESESW28 23S 22E	SESESW28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	REESE RODGER D & RUTH M		
111-24-CB-009-DM001	NO WATER RIGHT AWARDED	WELL	WRIGHT, ARTHUR L.	DM	NOT EVALUATED	NOT YET DETERMINED	SWSESE33 23S 22E	SWSESE33 23S 22E	NOT TO EXCEED 1 AF PER YEAR	WRIGHT ARTHUR L		
111-24-CB-011-DM001	NO WATER RIGHT AWARDED	WELL	HUEBNER, ROBERT L	DM	NOT EVALUATED	NOT YET DETERMINED	SENESW27 23S 22E	SENESW27 23S 22E	NOT TO EXCEED 1 AF PER YEAR	ISAACSON MARK W & MARYBEL		
111-24-CB-013-DM001	NO WATER RIGHT AWARDED	WELL	WOOD, WAYLAND & CAROLIN	DM	NOT EVALUATED	NOT YET DETERMINED	SESESW33 23S 22E	SESESW33 23S 22E	NOT TO EXCEED 1 AF PER YEAR	GRAVES SARAH		
111-24-CB-019-DM001	NO WATER RIGHT AWARDED	WELL	KEELEY, JAMES & SIEGRIO	DM	NOT EVALUATED	NOT YET DETERMINED	SESWNW33 23S 22E	SESWNW33 23S 22E	NOT TO EXCEED 1 AF PER YEAR	STONER MICHAEL ALAN		
111-24-CB-032-DM001	NO WATER RIGHT AWARDED	WELL	GREENOUGH, MICHAEL W.	DM	NOT EVALUATED	NOT YET DETERMINED	SESENE28 23S 22E	SESENE28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	COSBY THOMAS L III & SHELLY J		
111-24-CB-034-DM001	NO WATER RIGHT AWARDED	WELL	YELL, CHARLES E., ETUX.	DM	NOT EVALUATED	NOT YET DETERMINED	SENEENE28 23S 22E	SENEENE28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	CHANNELL WILLIAM L		
111-24-CB-040-DM001	NO WATER RIGHT AWARDED	WELL	FOSTER, LEONARD L.	DM	NOT EVALUATED	NOT YET DETERMINED	SWNWSE28 23S 22E	SWNWSE28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	BARNETT JOHN ALAN & OLGA LIDIA		
111-24-CB-043-DM001	NO WATER RIGHT AWARDED	WELL	ERICKSON, DAVID R.	DM	NOT EVALUATED	NOT YET DETERMINED	NWNESE28 23S 22E	NWNESE28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	ERICKSON DAVID RICHARD & CAROL E		
111-24-CB-044-DM001	NO WATER RIGHT AWARDED	WELL	GLADDEN, MARY L	DM	NOT EVALUATED	NOT YET DETERMINED	SWSENW28 23S 22E	SWSENW28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	DUCKWORTH RUSSELL C		
111-24-CB-046-DM001	NO WATER RIGHT AWARDED	WELL	STEWART, KENNETH B.	DM	NOT EVALUATED	NOT YET DETERMINED	NESENW28 23S 22E	NESENW28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	BRECKEL GEORGE RAYMOND		
111-24-CB-049-DM001	NO WATER RIGHT AWARDED	WELL	LONG, JAMES V.	DM	NOT EVALUATED	NOT YET DETERMINED	SWSWNW28 23S 22E	SWSWNW28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	BIAS LLOYD C & KOLLEAN MCMAHON		
111-24-CB-056-DM001	NO WATER RIGHT AWARDED	WELL	CLAUNCH, PEGGY J.	DM	NOT EVALUATED	NOT YET DETERMINED	SWNENW28 23S 22E	SWNENW28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	BERG MARK A & GINA M		
111-24-CB-059-DM001	NO WATER RIGHT AWARDED	WELL	PERRY, MATTHEW L.	DM	NOT EVALUATED	NOT YET DETERMINED	NWNWNW28 23S 22E	NWNWNW28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	MILLER LARRY L & MARCIA M		
111-24-CB-068-DM001	NO WATER RIGHT AWARDED	WELL	LINGO, ALVIN H.	DM	NOT EVALUATED	NOT YET DETERMINED	NENENW28 23S 22E	NENENW28 23S 22E	NOT TO EXCEED 1 AF PER YEAR	WIMMER BRIAN JOHN & KATRINA M		
111-24-CBC-021-DM001	NO WATER RIGHT AWARDED	WELL	CORNELIUS, PATRICIA A.	DM	NOT EVALUATED	NOT YET DETERMINED	SESESW33 23S 22E	SWSESW33 23S 22E	NOT TO EXCEED 1 AF PER YEAR	HOFMANN GERALD W & ESTER E		
111-24-DC-010-DM001	NO WATER RIGHT AWARDED	WELL	MITCHELL, JOHN C.	DM	NOT EVALUATED	NOT YET DETERMINED	SESESW18 24S 24E	SESESW18 24S 24E	NOT TO EXCEED 1 AF PER YEAR	RUBIO ANDRES & GLORIA K		
111-24-DC-028-DM001	NO WATER RIGHT AWARDED	WELL	NOBLE, ALICE B.	DM	NOT EVALUATED	NOT YET DETERMINED	NENENE17 24S 24E	NENENE17 24S 24E	NOT TO EXCEED 1 AF PER YEAR	NOBLE ALICE B		
111-24-DC-030-DM001	NO WATER RIGHT AWARDED	36-0018799	IRONS, LEE ETAL	DM	NOT EVALUATED	NOT YET DETERMINED	NWNWNE17 24S 24E	NENWNE17 24S 24E	NOT TO EXCEED 1 AF PER YEAR	GOAR SHEILA ANN		
<b>San Pedro I HSR Errata</b>												
111-23-AD-064-DM001	NO WATER RIGHT AWARDED	WELL	WHITE, DOUGLAS E.	DM	NOT EVALUATED	NOT YET DETERMINED	SESWSW11 23S 21E	SESWSW11 23S 21E	NOT TO EXCEED 1 AF PER YEAR	DANIELS JOHN L JR & BONNIE L		Duplicate to WFR 111-23-AD-073



**Table 2-6. Potential Non-De Minimis Domestic PWRs**

PROPOSED WATER RIGHT NUMBER	STATEMENT(S) OF CLAIMANT(S)	BASIS OF WATER RIGHT	OWNERSHIP (WFR LANDOWNER)	TYPE OF USE	PRIORITY DATE	SOURCE OF WATER	PLACE OF USE HSR	PLACE OF USE GIS	CURRENT LAND OWNERSHIP	SAN PEDRO HSR LESSEE	IRRIGATED AREA (ACRES)	COMMENTS
111-23-006-DM001	39-0003737, 39-0003745	33-0084558	LONE MOUNTAIN RANCH, INC.	DM	NOT EVALUATED	SURFACE WATER	NWSESE11 24S 19E	NWSESE11 24S 19E	IROQUOIS LLC			HSR states more than one DM being served by spring
111-23-006-DM002	39-0003737	33-0084558	LONE MOUNTAIN RANCH, INC.	DM	NOT EVALUATED	SURFACE WATER	SESWSE11 24S 19E	SESWSE11 24S 19E	IROQUOIS LLC			HSR states more than one DM being served by spring
111-23-009-DM001	NO WATER RIGHT AWARDED	WELL	US FOREST SERVICE - CORONADO	DM	NOT EVALUATED	NOT YET DETERMINED	SENESE13 23S 20E	SENESE13 23S 20E	US FOREST SERVICE - CORONADO	GREGOVICH, JAMES		No structure visible at this location in 1985 imagery.
111-23-009-DM002	NO WATER RIGHT AWARDED	WELL	US FOREST SERVICE - CORONADO	DM	NOT EVALUATED	NOT YET DETERMINED	SESWSE13 23S 20E	SESWSE13 23S 20E	US FOREST SERVICE - CORONADO	GREGOVICH, JAMES		No structure visible at this location in 1985 imagery.
111-23-011-DM001	39-0003610, 39-0008174	10-0218299.1100, 10-0224427.1100, 20-0217863, 36-0020979	US FOREST SERVICE - CORONADO	DM	NOT EVALUATED	SURFACE WATER	SESWNW30 23S 21E	SESWNW30 23S 21E	MARCO, JOSEPH D.			No structure visible at this location in 1985 imagery.
111-23-012-DM001	39-0003923, 39-0011024	36-0060620	OGUREK, HENRY J & OGUREK, VINCENT P.	DM	NOT EVALUATED	NOT YET DETERMINED	NENWNW17 23S 22E	NENWNW17 23S 22E	OGUREK VINCENT P			SOCs indicate both Henry Well (Old Sherman) & Henry's New Well serve domestic.
111-23-018-DM001	39-0001166, 39-0001167	WELL	BROWN, GEORGE T.	DM	NOT EVALUATED	NOT YET DETERMINED	NESENW15 24S 21E	SWNENW15 24S 21E	G E BROWN RANCH LLC		0.5	Irrigation greater than 0.2 acres associated with domestic use
111-23-039-DM001	39-0006097, 39-0012017	WELL	NATURE CONSERVANCY	DM	NOT EVALUATED	NOT YET DETERMINED	NWSWNW10 23S 20E	NWSWNW10 23S 20E	NATURE CONSERVANCY			Multiple diversions supply multiple domestic uses within the Ramsey Canyon Nature Conservancy Preserve
111-23-039-DM002	39-0006097, 39-0012107	WELL	NATURE CONSERVANCY	DM	NOT EVALUATED	NOT YET DETERMINED	SWSWNW10 23S 20E	SWSWNW10 23S 20E	NATURE CONSERVANCY			Multiple diversions supply multiple domestic uses within the Ramsey Canyon Nature Conservancy Preserve
111-23-039-DM003	39-0006098, 39-0012018	WELL	NATURE CONSERVANCY	DM	NOT EVALUATED	NOT YET DETERMINED	NENESE09 23S 20E	NENESE09 23S 20E	NATURE CONSERVANCY			Multiple diversions supply multiple domestic uses within the Ramsey Canyon Nature Conservancy Preserve
111-23-039-DM004	39-0006098, 39-0012018	WELL	NATURE CONSERVANCY	DM	NOT EVALUATED	NOT YET DETERMINED	NWNESE09 23S 20E	NWNESE09 23S 20E	NATURE CONSERVANCY			Multiple diversions supply multiple domestic uses within the Ramsey Canyon Nature Conservancy Preserve
111-23-039-DM005	39-0006098, 39-0012018	10-0222283.1100, 10-0224382.1100	NATURE CONSERVANCY	DM	NOT EVALUATED	NOT YET DETERMINED	NENWSE09 23S 20E	NENWSE09 23S 20E	NATURE CONSERVANCY			Multiple diversions supply multiple domestic uses within the Ramsey Canyon Nature Conservancy Preserve
111-23-039-DM006	39-0006098, 39-0012018	10-0222283.1100, 10-0224382.1100	NATURE CONSERVANCY	DM	NOT EVALUATED	NOT YET DETERMINED	NWNWSE09 23S 20E	NWNWSE09 23S 20E	NATURE CONSERVANCY			Multiple diversions supply multiple domestic uses within the Ramsey Canyon Nature Conservancy Preserve
111-23-043-DM001	39-0000444	36-0064565.0001, 4A-0000850.0001, 4A-0000903.0001	HELLER FINANCIAL, INC.	DM	NOT EVALUATED	SURFACE WATER	NENWSW33 23S 21E	NENWSW33 23S 21E	PIONEER TITLE AGENCY INC TR # 321365			HSR states DM served by more than one diversion
111-23-AC-004-DM001	39-0001178	WELL	LUSE, THOMAS E & NORLE, VIOLA K.	DM	NOT EVALUATED	NOT YET DETERMINED	SWSWSE03 23S 21E	SWSWSE03 23S 21E	DUNN BRAD ALLEN		0.8	Irrigation greater than 0.2 acres associated with domestic use
111-23-AC-013-DM001	39-0011681	WELL	GUNNELL, JAMES R.	DM	NOT EVALUATED	NOT YET DETERMINED	SWNWNE10 23S 21E	SWNWNE10 23S 21E	GUNNELL MARIAN E			SOC 39-11681 states multiple DMs served by well
111-23-AC-019-DM001	39-0002993	WELL	MCKEOWN, DENNIS P & ROOT, BRIAN & RONDA R.	DM	NOT EVALUATED	NOT YET DETERMINED	SESESE07 23S 21E	SESESE07 23S 21E	ROOT BRIAN D & RONDA R			SOC 39-2993 states multiple DMs served by well
111-23-AC-027-DM001	39-0010907	WELL	COLLIER, CURTIS R & TURLEY, JAMES R JR	DM	NOT EVALUATED	NOT YET DETERMINED	SWSESE08 23S 21E	SWSESE08 23S 21E	COLLIER CURTIS R & ELIZABETH D			SOC 39-10907 states multiple DMs served by well
111-23-AC-028-DM001	39-0005723	WELL	KID, JULIA L & TAYLOR, MOSES & ADLY	DM	NOT EVALUATED	NOT YET DETERMINED	SWSENW08 23S 21E	SWSENW08 23S 21E	WEBBER STEPHEN C JR		0.3	Irrigation greater than 0.2 acres associated with domestic use
111-23-AC-030-DM001	39-0010980	WELL	BUCKLES, JAMES A.	DM	NOT EVALUATED	NOT YET DETERMINED	NENWSW05 23S 21E	NENWSW05 23S 21E	CACERES GREGORY & LISA M LUICK		0.3	Irrigation greater than 0.2 acres associated with domestic use
111-23-AC-042-DM001	39-0002911	WELL	NAIR, WARD M. & JANE S.	DM	NOT EVALUATED	NOT YET DETERMINED	NWNESW05 23S 21E	NWNESW05 23S 21E	DEVRIES LAMBERT H & MARY P		0.3	Irrigation greater than 0.2 acres associated with domestic use
111-23-AC-054-DM001	39-0006654	WELL	FRITZ, JOHN E. & YOLANDA	DM	NOT EVALUATED	NOT YET DETERMINED	NWNWNW08 23S 21E	NENENW08 23S 21E	POTTERS CLAY REALTY LLC		0.3	Irrigation greater than 0.2 acres associated with domestic use
111-23-AD-019-DM001	39-0006353	WELL	SWEENEY, GERALDINE M.	DM	NOT EVALUATED	NOT YET DETERMINED	NENENE02 23S 21E	NENENE02 23S 21E	SWEENEY RICHARD A		1.8	Irrigation greater than 0.2 acres associated with domestic use
111-23-AD-023-DM001	39-0006488	WELL	LAM, LISA	DM	NOT EVALUATED	NOT YET DETERMINED	SESWSW02 23S 21E	SESWSE02 23S 21E	COLLINS HEATHER J			SOC 39-6488 states multiple DMs served by well
111-23-AD-024-DM001	39-0006489	WELL	DOMINGUEZ, GEORGINA J.	DM	NOT EVALUATED	NOT YET DETERMINED	SESWSE02 23S 21E	SESWSE02 23S 21E	COLLINS HEATHER J			SOC 39-6489 states multiple DMs served by well
111-23-AD-030-DM001	39-0012452	WELL	SCHAFF, JAMES L.	DM	NOT EVALUATED	NOT YET DETERMINED	NESENW11 23S 21E	SENENW11 23S 21E	SCHAFF LIVING TRUST		0.6	Irrigation greater than 0.2 acres associated with domestic use
111-23-AD-035-DM001	39-0002987	WELL	QUERY, GAIL D. & SUZANNE	DM	NOT EVALUATED	NOT YET DETERMINED	SWNNWSE12 23S 21E	SWNNWSE12 23S 21E	QUERY LIVING TRUST		2.5	Irrigation greater than 0.2 acres associated with domestic use
111-23-AD-055-DM001	NO WATER RIGHT AWARDED	WELL	SMITH, WILLIAM C.	DM	NOT EVALUATED	NOT YET DETERMINED	NWNWNE11 23S 21E	NWNWNE11 23S 21E	SMITH WILLIAM C & DORA DIANE		0.4	Irrigation greater than 0.2 acres associated with domestic use



**Table 2-6. Potential Non-De Minimis Domestic PWRs**

PROPOSED WATER RIGHT NUMBER	STATEMENT(S) OF CLAIMANT(S)	BASIS OF WATER RIGHT	OWNERSHIP (WFR LANDOWNER)	TYPE OF USE	PRIORITY DATE	SOURCE OF WATER	PLACE OF USE HSR	PLACE OF USE GIS	CURRENT LAND OWNERSHIP	SAN PEDRO HSR LESSEE	IRRIGATED AREA (ACRES)	COMMENTS
111-23-AD-061-DM001	39-0012608	WELL	MUSSELMAN, JACOB GENE	DM	NOT EVALUATED	NOT YET DETERMINED	NWNESW11 23S 21E	NWNESW11 23S 21E	MORGAN CHERYL ANNE & CARRY G		0.3	Irrigation greater than 0.2 acres associated with domestic use
111-23-AD-062-DM001	39-0004063, 39-0006170	WELL	SAUTER, HECTOR & MARTHA	DM	NOT EVALUATED	NOT YET DETERMINED	SWNESW11 23S 21E	SWNESW11 23S 21E	SAUTER MARTHA REVOCABLE TRUST		0.3	Irrigation greater than 0.2 acres associated with domestic use
111-23-AD-080-DM001	NO WATER RIGHT AWARDED	WELL	PANCOST, ROBERT E.	DM	NOT EVALUATED	NOT YET DETERMINED	SWNESW12 23S 21E	SWNESW12 23S 21E	WARREN KATHLEEN MARIE			Well registration states well is shared.
111-23-AD-081-DM001	NO WATER RIGHT AWARDED	WELL	BYNOG, ROBERT C.	DM	NOT EVALUATED	NOT YET DETERMINED	NWNESW12 23S 21E	NWNESW12 23S 21E	CADROBBI WANDA EVON			Well registration states well is shared.
111-23-AD-086-DM001	NO WATER RIGHT AWARDED	WELL	TORESDAHL, JAMES A	DM	NOT EVALUATED	NOT YET DETERMINED	NWNWSE12 23S 21E	NWNWSE12 23S 21E	TORESDAHL JAMES ALLAN & JUANITA ANN		0.5	Irrigation greater than 0.2 acres associated with domestic use
111-23-AD-088-DM001	39-0003277, 39-0011369	WELL	COLANTO, JOSEPH D.	DM	NOT EVALUATED	NOT YET DETERMINED	NENESE12 23S 21E	NENESE12 23S 21E	COLANTO JOSEPH & EMELDA LIVING TRUST			Well registration and SOC state well is shared.
111-23-AD-094-DM001	39-0003249, 39-0012840, 39-0012841	WELL	RIDLING, ILEY C.	DM	NOT EVALUATED	NOT YET DETERMINED	N2NESW07 23S 22E	NENESW07 23S 22E	SANTA MARIA FRANK B & SUN K			SOC 39-12481 states multiple DMs served by well
111-23-AD-095-DM001	39-0005635	WELL	BAXTER, MERLYN L.	DM	NOT EVALUATED	NOT YET DETERMINED	SENESEW07 23S 22E	SENESEW07 23S 22E	LIGHTNER RICHARD ISAAC & SHEILA LYNN LIVING TRUST		1.4	Irrigation greater than 0.2 acres associated with domestic use
111-23-AD-096-DM001	NO WATER RIGHT AWARDED	WELL	BEASON, JACK O.	DM	NOT EVALUATED	NOT YET DETERMINED	NWSWSE07 23S 22E	NWSWSE07 23S 22E	STODDARD DAVID J & MARY E		0.3	Irrigation greater than 0.2 acres associated with domestic use
111-23-ADC-031-DM001	39-0012565	WELL	KELLIHER, JOHN F.	DM	NOT EVALUATED	NOT YET DETERMINED	NESWSW12 23S 21E	NESWSW12 23S 21E	SCHAEFER DEBORAH H LIVING TRUST			HSR states more than one PWR being served by well
111-23-ADC-041-DM001	39-0011448	WELL	GOLD, KENNETH B.	DM	NOT EVALUATED	NOT YET DETERMINED	NESWSE12 23S 21E	SESWSE12 23S 21E	EISENMAN FRANZ G & DONNA J			SOC 39-11448 states well shared with family member on neighboring parcel
111-23-ADC-042-DM001	39-0011448	WELL	GOLD, KENNETH B.	DM	NOT EVALUATED	NOT YET DETERMINED	SESWSE12 23S 21E	SESWSE12 23S 21E	GOLD KENNETH B & DARIA E			SOC 39-11448 states well shared with family member on neighboring parcel
111-23-ADC-043-DM001	39-0011265	WELL	ANDERSON, DAVID E.	DM	NOT EVALUATED	NOT YET DETERMINED	SWNNWSE12 23S 21E	NWNSE12 23S 21E	MILLICAN JOHN T & DIXIE J			HSR states more than one PWR being served by well
111-23-ADC-059-DM001	39-0004051	WELL	STEPHENS, THOMAS W.	DM	NOT EVALUATED	NOT YET DETERMINED	NWNWSW02 23S 21E	NWNWSW02 23S 21E	STEPHENS THOMAS W & MARGARET M			HSR states more than one PWR being served by well
111-23-BD-037-DM001	39-0006166	WELL	VANDERHOFF, ARLENE J.	DM	NOT EVALUATED	NOT YET DETERMINED	SENWNNW12 23S 20E	SWNENW12 23S 20E	TUTTLE ROCKY			SOC 39-6166 states multiple DMs served by well
111-23-BD-039-DM001	39-0003423	WELL	OSBORNE, DORIS I.	DM	NOT EVALUATED	NOT YET DETERMINED	SWNWNW11 23S 20E	SENWNNW12 23S 20E	BOWSER DAVID & PAT			SOC 39-3423 states multiple DMs served by well
111-23-BD-046-DM001	39-0003216	WELL	COUNTRY ESTATES BAPTIST CHURCH	DM	NOT EVALUATED	NOT YET DETERMINED	SENESE01 23S 20E	SENESE01 23S 20E	COUNTRY ESTATES BAPTIST CHURCH			SOC 39-3216 states multiple DMs served by well
111-23-BD-047-DM001	NO WATER RIGHT AWARDED	WELL	CONRAD, EDWARD & SUSAN E.	DM	NOT EVALUATED	NOT YET DETERMINED	NWSENE01 23S 20E	NWSENE01 23S 20E	MILLER RICHARD KEITH			2 dwellings present in 1985 imagery. Parcel has been subdivided
111-23-BD-051-DM001	NO WATER RIGHT AWARDED	WELL	RISING, CHARLES G SR	DM	NOT EVALUATED	NOT YET DETERMINED	SESWNE01 23S 20E	SESWNE01 23S 20E	OBAL DAVID L & LISA N		0.6	Irrigation greater than 0.2 acres associated with domestic use
111-23-BD-056-DM001	39-0006323	WELL	WAGNER, GERALD E.	DM	NOT EVALUATED	NOT YET DETERMINED	NENESE01 23S 20E	NENESE01 23S 20E	HERBERT GEOFFREY & JOLENE		0.3	Irrigation greater than 0.2 acres associated with domestic use
111-23-BD-057-DM001	39-0012265	WELL	NIEHUUS, DENNIS R.	DM	NOT EVALUATED	NOT YET DETERMINED	NWNSE01 23S 20E	NWNSE01 23S 20E	WHITNEY NANCY L			SOC 39-12265 states multiple domestics served by well
111-23-BD-066-DM001	NO WATER RIGHT AWARDED	WELL	BLAGG, RUEL T. & CAROL J.	DM	NOT EVALUATED	NOT YET DETERMINED	SWNESE01 23S 20E	SWNESE01 23S 20E	MCCALLISTER ROGER & HOLLY F		0.3	Irrigation greater than 0.2 acres associated with domestic use
111-23-BD-068-DM001	39-0002201	WELL	LEWIS, LLOYD ROLAND, ETUX	DM	NOT EVALUATED	NOT YET DETERMINED	SWNESE01 23S 20E	SWNESE01 23S 20E	LEWIS FAMILY TRUST		0.7	Irrigation greater than 0.2 acres associated with domestic use
111-23-BD-071-DM001	39-0011620	WELL	MERRITT, GRACE L.	DM	NOT EVALUATED	NOT YET DETERMINED	SENESE01 23S 20E	SENESE01 23S 20E	YARBROUGH GAYLAND F REVOCABLE LIV TR			Commercial use.
111-23-BD-082-DM001	39-0005996	WELL	HODGES, JAMES J.	DM	NOT EVALUATED	NOT YET DETERMINED	NESWSE01 23S 20E	NESWSE01 23S 20E	ALJAMAL BRIGITTA C			SOC 39-5996 states multiple DMs served by well
111-23-BD-085-DM001	39-0005999	WELL	MATHEWS, MURVIN E.	DM	NOT EVALUATED	NOT YET DETERMINED	SWSESE01 23S 20E	SWSESE01 23S 20E	DAVIS JESSE E & MARY T		0.3	Irrigation greater than 0.2 acres associated with domestic use
111-23-BD-088-DM001	NO WATER RIGHT AWARDED	WELL	ROGERS, RICHARD R.	DM	NOT EVALUATED	NOT YET DETERMINED	SESWSE01 23S 20E	SESWSE01 23S 20E	ROGERS LIVING TRUST		0.3	Irrigation greater than 0.2 acres associated with domestic use
111-23-BD-089-DM001	NO WATER RIGHT AWARDED	WELL	STOKES, BONITA B	DM	NOT EVALUATED	NOT YET DETERMINED	SESWSE01 23S 20E	SESWSE01 23S 20E	MECUCCI LAWRENCE D		0.3	Irrigation greater than 0.2 acres associated with domestic use
111-23-BD-110-DM001	39-0013059	WELL	OGREN, CURT L.	DM	NOT EVALUATED	NOT YET DETERMINED	NESENE01 23S 20E	SESENE01 23S 20E	OGREN CURT L		0.3	Irrigation greater than 0.2 acres associated with domestic use
111-23-BDCA-009-DM001	39-0004579	10-0220357.1100	FRY, THOMAS A.	DM	NOT EVALUATED	NOT YET DETERMINED	SESESW03 23S 20E	SESESW03 23S 20E	FRY THOMAS XXX			HSR states more than one PWR being served by well
111-23-CAA-001-DM001	39-0002781, 39-0002782, 39-0002783, 39-0004336, 39-0004337, 39-0004338	36-0066116	BEATTY, THOMAS L	DM	NOT EVALUATED	NOT YET DETERMINED	NWNSESE23 23S 20E	NWNSESE23 23S 20E	BEATTY S GUEST RANCH & ORCHARD LLC			HSR states more than one PWR being served by well
111-23-DA-002-DM001	39-0005676	WELL	SIMMONS, JOEL C	DM	NOT EVALUATED	NOT YET DETERMINED	NESESE32 23S 22E	NESESE32 23S 22E	GRONSKI LINDA K		0.9	Irrigation greater than 0.2 acres associated with domestic use
111-23-DA-003-DM001	39-0006429	WELL	WETTER, MARION R., ETUX.	DM	NOT EVALUATED	NOT YET DETERMINED	SESESE32 23S 22E	SESESE32 23S 22E	HAAKE ROBIN B		1.5	Irrigation greater than 0.2 acres associated with domestic use



**Table 2-6. Potential Non-De Minimis Domestic PWRs**

PROPOSED WATER RIGHT NUMBER	STATEMENT(S) OF CLAIMANT(S)	BASIS OF WATER RIGHT	OWNERSHIP (WFR LANDOWNER)	TYPE OF USE	PRIORITY DATE	SOURCE OF WATER	PLACE OF USE HSR	PLACE OF USE GIS	CURRENT LAND OWNERSHIP	SAN PEDRO HSR LESSEE	IRRIGATED AREA (ACRES)	COMMENTS
111-23-DA-010-DM001	39-0001145	WELL	BARNETT, MARGARET E.	DM	NOT EVALUATED	NOT YET DETERMINED	SENESE31 23S 22E	SENESE31 23S 22E	BUSH CODY L & IEMELDA MEREL		0.3	Irrigation greater than 0.2 acres associated with domestic use
111-23-DA-023-DM001	39-0003191, 39-0011558	WELL	ROTTWEILER, PAUL W.	DM	NOT EVALUATED	NOT YET DETERMINED	SWSWSW25 23S 21E	NWSWSW25 23S 21E	NEWELL KENNETH R & SHARON L (2)			SOC 39-11558 states multiple DMs served by well
111-23-DA-026-DM001	39-0012730	WELL	CORBETT, GLADYS M.	DM	NOT EVALUATED	NOT YET DETERMINED	NWNWSE25 23S 21E	NWNWSE25 23S 21E	OCHOA ALEJANDRO R & OLGA NANCY LOPEZ DE			SOC 39-12730 states multiple DMs served by well
111-23-DA-027-DM001	39-0000589, 39-0000590, 39-0003349, 39-0003350	WELL	SCHOOL DISTRICT #49	DM	NOT EVALUATED	NOT YET DETERMINED	SWSESE32 23S 22E	SWSESE32 23S 22E	SCHOOL DISTRICT #49			Well supplies Palominas Public School
111-23-DA-028-DM001	39-0006167	WELL	WILLIAMS, DONALD E.	DM	NOT EVALUATED	NOT YET DETERMINED	SESESE32 23S 22E	SESESE32 23S 22E	KING CARLA E		1	Irrigation greater than 0.2 acres associated with domestic use
111-23-DAA-001-DM001	39-0012682	WELL	TENNECO ARIZONA PROPERTY CORPORATION	DM	NOT EVALUATED	NOT YET DETERMINED	NWNWSE20 23S 22E	SESENW20 23S 22E	WILLIAMS FAMILY TRUST			HSR states more than one PWR being served by well
111-23-DAD-007-DM001	39-0011922	WELL	AGUIRRE, GILBERTO O.	DM	NOT EVALUATED	NOT YET DETERMINED	SESENW30 23S 22E	SESENW30 23S 22E	JONES DANIEL & GAIL			HSR states more than one PWR being served by well
111-23-DB-001-DM001	39-0005728	WELL	KEILLER, RANDY J.	DM	NOT EVALUATED	NOT YET DETERMINED	SWNWSW17 23S 21E	NWNWSW17 23S 21E	KEILLER RANDY J & LAURA G		0.7	Irrigation greater than 0.2 acres associated with domestic use
111-23-DB-005-DM001	39-0006508	WELL	LANDERS, EUDALL A	DM	NOT EVALUATED	NOT YET DETERMINED	SWSESE18 23S 21E	SWSESE18 23S 21E	LANDERS LORA J			SOC 39-6508 states multiple DMs served by well
111-23-DB-006-DM001	39-0006445	WELL	SEARS, DEBRA J.	DM	NOT EVALUATED	NOT YET DETERMINED	NESENE19 23S 21E	NESENE19 23S 21E	SEARS DEBRA J			SOC 39-6445 states multiple DMs served by well
111-23-DB-011-DM001	39-0011086	WELL	STRANGE, CHARLES R	DM	NOT EVALUATED	NOT YET DETERMINED	NENENE18 23S 21E	NENENE18 23S 21E	LUTHER VENOLA STRANG		0.3	Irrigation greater than 0.2 acres associated with domestic use
111-23-DB-013-DM001	39-0011445	WELL	MCCLAIN, ALFONSO	DM	NOT EVALUATED	NOT YET DETERMINED	NWNENE18 23S 21E	NWNENE18 23S 21E	EGNER TERRY & JUDITH			SOC 39-11445 states multiple DMs served by well
111-23-DB-025-DM001	NO WATER RIGHT AWARDED	WELL	SANDERS, CARL L	DM	NOT EVALUATED	NOT YET DETERMINED	NESENE19 23S 21E	SENEENE19 23S 21E	SANDERS LINDA IRENE		0.3	Irrigation greater than 0.2 acres associated with domestic use
111-23-DB-029-DM001	NO WATER RIGHT AWARDED	WELL	SMITH, ROBERT L	DM	NOT EVALUATED	NOT YET DETERMINED	NESENE19 23S 21E	NESENE19 23S 21E	FROUST DONALD J			Well registration states well is shared.
111-23-DB-039-DM001	NO WATER RIGHT AWARDED	WELL	DUNN, EDDIE L.	DM	NOT EVALUATED	NOT YET DETERMINED	SENWNW20 23S 21E	SENWNW20 23S 21E	DUNN EDWIN L & FRANCES G REV LIV TRUST		0.4	Irrigation greater than 0.2 acres associated with domestic use
111-23-DB-049-DM001	NO WATER RIGHT AWARDED	WELL	NEWTON, WILLIAM D.	DM	NOT EVALUATED	NOT YET DETERMINED	SWSWNW17 23S 21E	SWSWNW17 23S 21E	GUERRERO ABEL C & MARIA A			Shared well.
111-23-DB-060-DM001	NO WATER RIGHT AWARDED	WELL	MCFARLAND, ANTHONY N	DM	NOT EVALUATED	NOT YET DETERMINED	NENWSW32 23S 21E	NENWSW32 23S 21E	WERKHEISER AUDRA			Claimant states no well on property which is served by Bella Vista Water Co.
111-23-DBB-026-DM001	39-0005735, 39-0005736	0-0000033, 10-0216252.1100, 10-0221141.1100, 20-0209205, O-0000033	MARSHALL, BETTY J.	DM	NOT EVALUATED	NOT YET DETERMINED	NWSESE18 23S 21E	NWSESE18 23S 21E	WEISBERG RICHARD L			HSR states more than one PWR being served by well
111-23-DBB-027-DM001	39-0000655	WELL	MARTINEZ, CEDRIC G.	DM	NOT EVALUATED	NOT YET DETERMINED	NESWSE18 23S 21E	NESWSE18 23S 21E	CANYON CREEK PROPERTIES			HSR states more than one PWR being served by well
111-23-DBC-036-DM001	39-0003801	WELL	GUY, LORA J.	DM	NOT EVALUATED	SURFACE WATER	SESENE31 23S 21E	SESENE31 23S 21E	GUY LORA J INTERVIVOS TRUST			HSR states more than one PWR being served by well
111-23-DCC-001-DM001	39-0004343	WELL	RICHARDS, RICHARD B.	DM	NOT EVALUATED	NOT YET DETERMINED	NESWNE17 24S 21E	NWSWNE17 24S 21E	NATIONAL PARK SERVICE			HSR states more than one PWR being served by well
111-23-DD-001-DM001	39-0005857, 39-0005858	WELL	STUDER, EARLE	DM	NOT EVALUATED	NOT YET DETERMINED	SESWNW05 24S 22E	SESWNW05 24S 22E	KEMERY MARY BELCHER		1.2	Irrigation greater than 0.2 acres associated with domestic use
111-23-DD-011-DM001	39-0006424	WELL	FERGUSON, JOHN R.	DM	NOT EVALUATED	NOT YET DETERMINED	NENWNW05 24S 22E	NENWNW05 24S 22E	MULLINS DANNY D & MARY PRATT JOHN MATTHEW & BRENDA MAE		1	Irrigation greater than 0.2 acres associated with domestic use
111-23-DD-013-DM001	NO WATER RIGHT AWARDED	WELL	TAFOYA, MOISES	DM	NOT EVALUATED	NOT YET DETERMINED	NENENE05 24S 22E	NENENE05 24S 22E	PRATT JOHN MATTHEW & BRENDA MAE			House and large commercial building
111-23-DD-014-DM001	39-0003395, 39-0003427	WELL	SMITH, EMORY J.	DM	NOT EVALUATED	NOT YET DETERMINED	NENENE05 24S 22E	NENENE05 24S 22E	PRATT JOHN MATTHEW & BRENDA MAE			SOC 39-3395 states multiple DMs served by well
111-23-DDA-006-DM001	39-0006574, 39-0010899	WELL	KING, GEORGE W.	DM	NOT EVALUATED	NOT YET DETERMINED	NENWNE06 24S 22E	NENWNE06 24S 22E	LEIENDECKER BENJAMIN BOOTH & VIRGINIA LEE REV TR			HSR states more than one PWR being served by well
111-23-DDA-022-DM001	39-0002234	WELL	CLINTON, JOE A.	DM	NOT EVALUATED	NOT YET DETERMINED	SWSWSW05 24S 22E	SWSWSW05 24S 22E	SYLVESTER FAM LIV TRUST			HSR states more than one PWR being served by well
111-23-DDA-022-DM002	39-0002235	WELL	CLINTON, JOE A.	DM	NOT EVALUATED	NOT YET DETERMINED	NWNENE05 24S 22E	NWNENE05 24S 22E	MAYNE RICHARD LOUIS & DEBRA JEAN			HSR states more than one PWR being served by well
111-23-DDA-023-DM001	39-0006426	WELL	LEIENDECKER, DALE M.	DM	NOT EVALUATED	NOT YET DETERMINED	SWNENE06 24S 22E	SENWNE06 24S 22E	LEIENDECKER PATRICIA L REVOCABLE LIVING TRUST			HSR states more than one PWR being served by well
111-23-DDA-024-DM001	39-0004699	WELL	TITLE U.S.A. CO-TUCSON	DM	NOT EVALUATED	NOT YET DETERMINED	SWNWNW06 24S 22E	SWNWNW06 24S 22E	YOUTH PAD INC			HSR states more than one PWR being served by well
111-23-DDA-025-DM001	39-0004699	WELL	ASSEMBLIES OF GOD, INC.	DM	NOT EVALUATED	NOT YET DETERMINED	NWNWNW06 24S 22E	NWNWNW06 24S 22E	YOUTH PAD INC			HSR states more than one PWR being served by well



**Table 2-6. Potential Non-De Minimis Domestic PWRs**

PROPOSED WATER RIGHT NUMBER	STATEMENT(S) OF CLAIMANT(S)	BASIS OF WATER RIGHT	OWNERSHIP (WFR LANDOWNER)	TYPE OF USE	PRIORITY DATE	SOURCE OF WATER	PLACE OF USE HSR	PLACE OF USE GIS	CURRENT LAND OWNERSHIP	SAN PEDRO HSR LESSEE	IRRIGATED AREA (ACRES)	COMMENTS
111-24-025-DM001	39-0003055, 39-0006162	WELL	FOUDY, MICHAEL J JR	DM	NOT EVALUATED	NOT YET DETERMINED	NENENE06 24S 23E	NENENE06 24S 23E	LADD MARIE W CREDIT TRUST			DM served by two wells.
111-24-042-DM001	39-0002519, 39-0002521, 39-0013023	WELL	LADD, JOHN H. & MARIE W.	DM	NOT EVALUATED	NOT YET DETERMINED	NENWSW11 24S 23E	NENWSW11 24S 23E	LADD MARIE W CREDIT TRUST			HSR states shared use. Well is used to supply water to the Naco Wastewater Treatment Facility (Refer to WFR 111-24-86)
111-24-085-DM001	39-0006364	WELL	MACNEIL, ROBERT S.	DM	NOT EVALUATED	NOT YET DETERMINED	SWNENE28 23S 22E	SWNENE28 23S 22E	MAC NEIL ROBERT (2)		0.3	Irrigation greater than 0.2 acres associated with domestic use
111-24-AC-002-DM001	39-0000605	4A-0002597	SNOWBALL, SALLY S.	DM	NOT EVALUATED	SURFACE WATER	NWSESE06 23S 24E	NWSESE06 23S 24E	BOOTH RANDY REED			No structure visible at this location in 1985 imagery.
111-24-AC-004-DM001	39-0001685	WELL	MCCURDY, BONNIE I.	DM	NOT EVALUATED	NOT YET DETERMINED	SWNENW06 23S 24E	SWNENW06 23S 24E	BENHASE MARY LYNNE			SOC 39-1685 states three wells serve domestic
111-24-ACD-001-DM001	39-0000352, 39-0000359, 39-0000361	WELL	CLEVELAND, ROBERT L.	DM	NOT EVALUATED	SURFACE WATER	SWNWSW06 23S 24E	SWNWSW06 23S 24E	CLEVELAND CHARLES THOMAS			HSR states more than one PWR being served by well
111-24-BDC-008-DM001	NO WATER RIGHT AWARDED	WELL	BARKER, DELMAR LEE	DM	NOT EVALUATED	NOT YET DETERMINED	SWSENE08 23S 23E	SESENE08 23S 23E	BARKER FAMILY REVOCABLE TRUST AGREEMENT			HSR states more than one PWR being served by well
111-24-CA-009-DM001	39-0011771	WELL	COLEMAN, RONALD L JR	DM	NOT EVALUATED	NOT YET DETERMINED	NWSWNW34 23S 23E	NWSWNW34 23S 23E	COLEMAN BETTY LOU			SOC 39-1171 states multiple DMs served by well
111-24-CB-002-DM001	39-0005399, 39-0005400	WELL	FOX, DONALD B., ETUX.	DM	NOT EVALUATED	NOT YET DETERMINED	SENWNE34 23S 22E	SENWNE34 23S 22E	FOX DONALD B & MARGARET A REV LIV TR		0.7	Irrigation greater than 0.2 acres associated with domestic use
111-24-CB-006-DM001	39-0001586	WELL	HEMENWAY, PAUL D.	DM	NOT EVALUATED	NOT YET DETERMINED	SWSWNW33 23S 22E	SWSWNW33 23S 22E	HEMENWAY BENJAMIN F & BETTY L		1	Irrigation greater than 0.2 acres associated with domestic use
111-24-CB-008-DM001	NO WATER RIGHT AWARDED	WELL	MEREDITH, RURAL SR & LEUBA, HAROLD	DM	NOT EVALUATED	NOT YET DETERMINED	SWSESW34 23S 22E	SWSESW34 23S 22E	UPDIKE DONALD S & ANGELINA K REV LIV TST			Commercial property: restauraunt or bar
111-24-CB-012-DM001	39-0005624	WELL	CLINE, ROBERT J JR & CLINE, LINDA L	DM	NOT EVALUATED	NOT YET DETERMINED	SESWNW33 23S 22E	SWSWNW33 23S 22E	CAPRANICA THOMAS W			SOC 39-5624 states well serves multiple families.
111-24-CB-012-DM002	NO WATER RIGHT AWARDED	WELL	CLINE, ROBERT J JR & CLINE, LINDA L	DM	NOT EVALUATED	NOT YET DETERMINED	SWSWNW33 23S 22E	SESWNW33 23S 22E	CLINE ROBERT J JR			Shared well.
111-24-CB-014-DM001	NO WATER RIGHT AWARDED	WELL	WOOD, BUCK P & ELY, BONNIE	DM	NOT EVALUATED	NOT YET DETERMINED	SESESW33 23S 22E	SESESW33 23S 22E	GRAVES SARAH		0.3	Irrigation greater than 0.2 acres associated with domestic use
111-24-CB-016-DM001	39-0005782	WELL	OLSEN, LARRY G.	DM	NOT EVALUATED	NOT YET DETERMINED	SWNWSW33 23S 22E	SWNWSW33 23S 22E	MARRA THOMAS W & LISA M		0.4	Irrigation greater than 0.2 acres associated with domestic use
111-24-CB-017-DM001	NO WATER RIGHT AWARDED	WELL	PALOMINAS FIRE DISTRICT	DM	NOT EVALUATED	NOT YET DETERMINED	SWSWNW33 23S 22E	SWSWNW33 23S 22E	PALOMINAS FIRE DISTRICT			Shared well.
111-24-CB-018-DM001	NO WATER RIGHT AWARDED	WELL	YOUNG, JAMES & ELLEN M.	DM	NOT EVALUATED	NOT YET DETERMINED	SESWNW33 23S 22E	SESWNW33 23S 22E	POTTER BARBARA B & ALAN THOMAS			Shared well.
111-24-CB-020-DM001	NO WATER RIGHT AWARDED	WELL	PALMER, MICHAEL S.	DM	NOT EVALUATED	NOT YET DETERMINED	SWSWNW33 23S 22E	SWSWNW33 23S 22E	WEDERSKI MICHAEL			Shared well.
111-24-CB-022-DM001	NO WATER RIGHT AWARDED	WELL	LOWREY, GRACE P.	DM	NOT EVALUATED	NOT YET DETERMINED	SWSWNW33 23S 22E	SWSWNW33 23S 22E	CONTRERAS VALDEMAR E & TANYA L			Shared well.
111-24-CB-023-DM001	NO WATER RIGHT AWARDED	WELL	WETTER, FRANCES I.	DM	NOT EVALUATED	NOT YET DETERMINED	SWSWNW33 23S 22E	SWSWNW33 23S 22E	FOLCK NANCY A			Shared well.
111-24-CB-024-DM001	NO WATER RIGHT AWARDED	WELL	SHUGART, JAMES A.	DM	NOT EVALUATED	NOT YET DETERMINED	SWSWNW33 23S 22E	SWSWNW33 23S 22E	SHUGART BESSIE M REVOCABLE LIVING TRUST			Shared well.
111-24-CB-026-DM001	NO WATER RIGHT AWARDED	WELL	FISHER, DONALD C.	DM	NOT EVALUATED	NOT YET DETERMINED	SESWNW33 23S 22E	SESWNW33 23S 22E	SHOCKLEY ROBERT WAYNE			Shared well.
111-24-CB-027-DM001	NO WATER RIGHT AWARDED	WELL	BARTHOLOMEW, MELVIN	DM	NOT EVALUATED	NOT YET DETERMINED	SESWNW33 23S 22E	SESWNW33 23S 22E	SHOCKLEY ROBERT WAYNE			Shared well.
111-24-CB-039-DM001	39-0003603	WELL	ADAMSON, ANNA	DM	NOT EVALUATED	NOT YET DETERMINED	SWNWSE28 23S 22E	SWNWSE28 23S 22E	CLEARY DANNY O & ELNA M		0.3	Irrigation greater than 0.2 acres associated with domestic use
111-24-CB-047-DM001	39-0006044	WELL	RAY, STEPHEN G.	DM	NOT EVALUATED	NOT YET DETERMINED	NESENW28 23S 22E	NESENW28 23S 22E	RAY STEVEN G & ALETA A		0.3	Irrigation greater than 0.2 acres associated with domestic use
111-24-CB-060-DM001	39-0011334	WELL	ROBERTS, BRUCE C.	DM	NOT EVALUATED	NOT YET DETERMINED	SWNENW28 23S 22E	SWNENW28 23S 22E	BRECKEL CARL J & LOUISE			SOC 39-11334 states multiple wells supply domestic uses
111-24-CBB-001-DM001	39-0003510, 39-0005380	WELL	STONER, DONALD J.	DM	NOT EVALUATED	NOT YET DETERMINED	NWSESW21 23S 22E	NWSESW21 23S 22E	STONER JOHN H & MARLA K			HSR states more than one PWR being served by well
111-24-CBC-003-DM001	39-0006553, 39-0006554	WELL	CORMELL, MARTHA FREIDA W.	DM	NOT EVALUATED	NOT YET DETERMINED	NENESW27 23S 22E	NENESW27 23S 22E	CORMELL FAMILY TRUST			HSR states multipple PWRs supplied by multiple wells
111-24-CBC-005-DM001	39-0006034	WELL	ISAACSON, CARL M.	DM	NOT EVALUATED	NOT YET DETERMINED	SWSWNW26 23S 22E	SWSWNW26 23S 22E	HYDE JOHN A & FREIDA A			HSR states more than one PWR being served by well
111-24-CBC-006-DM001	39-0005366, 39-0005367	WELL	DINWIDDIE, EDGAR, ETUX.	DM	NOT EVALUATED	NOT YET DETERMINED	NWSENW27 23S 22E	NWSENW27 23S 22E	DINWIDDIE LORRAINE REV TRUST			HSR states more than one PWR being served by well
111-24-CBC-007-DM001	39-0005625, 39-0005982	36-0102344	WARNE, J E JR	DM	NOT EVALUATED	NOT YET DETERMINED	NENESW34 23S 22E	SWNESW34 23S 22E	4J4 LLC		0.3	Irrigation greater than 0.2 acres associated with domestic use
111-24-CBC-009-DM001	39-0002584	WELL	ARNTZ, JOHN P.	DM	NOT EVALUATED	NOT YET DETERMINED	SESESE33 23S 22E	SESESE33 23S 22E	BOUILLY RICHARD E & PAMELA		0.5	Irrigation greater than 0.2 acres associated with domestic use





Table 2-6. Potential Non-De Minimis Domestic PWRs

PROPOSED WATER RIGHT NUMBER	STATEMENT(S) OF CLAIMANT(S)	BASIS OF WATER RIGHT	OWNERSHIP (WFR LANDOWNER)	TYPE OF USE	PRIORITY DATE	SOURCE OF WATER	PLACE OF USE HSR	PLACE OF USE GIS	CURRENT LAND OWNERSHIP	SAN PEDRO HSR LESSEE	IRRIGATED AREA (ACRES)	COMMENTS
111-24-CBC-014-DM001	39-0003452, 39-0011011	WELL	DRIJVER, JAN M.	DM	NOT EVALUATED	NOT YET DETERMINED	SWSWSE33 23S 22E	NENWSE33 23S 22E	LEWIS GORDON & ANN E PREZYNA			HSR states more than one PWR being served by well
111-24-CBC-020-DM001	39-0005817	WELL	ERKLANS, JOHN & OVA	DM	NOT EVALUATED	NOT YET DETERMINED	SESESW33 23S 22E	SESESW33 23S 22E	LEHMAN DANA B & MELBA TRAVIS		0.4	Irrigation greater than 0.2 acres associated with domestic use
111-24-CBC-022-DM001	39-0002200	WELL	DE FREECE, D.H. & THEOLA	DM	NOT EVALUATED	NOT YET DETERMINED	SWSSEW33 23S 22E	SWSSEW33 23S 22E	DODD DWAIN E K		1.4	Irrigation greater than 0.2 acres associated with domestic use
111-24-CBC-048-DM001	39-0000351	WELL	BARNETT, OTIS E JR	DM	NOT EVALUATED	NOT YET DETERMINED	NWSWSE28 23S 22E	NWSWSE28 23S 22E	BARNETT OTIS E & CLARA LUZ BARNETT			HSR states more than one PWR being served by well
111-24-CBC-063-DM001	39-0001575, 39-0011479	WELL	BECKWITH, IDA MARGRET	DM	NOT EVALUATED	NOT YET DETERMINED	NESENW28 23S 22E	NESENW28 23S 22E	BECKWITH SHELLEN M			HSR states more than one PWR being served by well
111-24-CBC-078-DM001	39-0006549	WELL	DWYER, WILLIAM E.	DM	NOT EVALUATED	NOT YET DETERMINED	SWNWNW28 23S 22E	SWNWNW28 23S 22E	NUNO ABEL & BLANCA ESTELA			HSR states more than one PWR being served by well
111-24-CBD-001-DM001	39-0001577, 39-0005941	WELL	DUNN, AVIS E & LOPER, JOEL E.	DM	NOT EVALUATED	NOT YET DETERMINED	SENWNE35 23S 22E	SENWNE35 23S 22E	MORALES ABRAM O & DIANA M			HSR states more than one PWR being served by well
111-24-CC-001-DM001	39-0002332, 39-0002333, 39-0002334	WELL	BOND, PATSY	DM	NOT EVALUATED	NOT YET DETERMINED	NWNENW04 24S 22E	NWNENE27 23S 23E	PETERSON RICHARD MAUL & LANS (2)			HSR states domestic served by more than one diversion
111-24-CC-003-DM001	39-0010829	WELL	WATTS, CAROLYN C.	DM	NOT EVALUATED	NOT YET DETERMINED	NWNWNW04 24S 22E	NWNWNW04 24S 22E	1002 PROPERTIES LLC			Commercial use; HSR states more than one PWR being served by well
111-24-CC-004-DM001	39-0000148	WELL	GECK, FERNANDO, ETUX.	DM	NOT EVALUATED	NOT YET DETERMINED	NENWNW04 24S 22E	NENWNW04 24S 22E	BISBEE HOSPITAL ASSOC INC		0.3	Irrigation greater than 0.2 acres associated with domestic use
111-24-CC-007-DM001	NO WATER RIGHT AWARDED	WELL	LANGSTON, IVAN K. & FAY	DM	NOT EVALUATED	NOT YET DETERMINED	NENENW04 24S 22E	NENENW04 24S 22E	PETITT BARRY F		0.4	Irrigation greater than 0.2 acres associated with domestic use
111-24-DC-003-DM001	39-0004046	WELL	OLMSTEAD, BAKER L.	DM	NOT EVALUATED	NOT YET DETERMINED	NWNWNW17 24S 24E	NWNWNW17 24S 24E	FREEPORT-MCMORAN CORP		0.3	Irrigation greater than 0.2 acres associated with domestic use
111-24-DC-006-DM001	39-0006575	WELL	VALENZUELA, JORGE C.	DM	NOT EVALUATED	NOT YET DETERMINED	SESWSW19 24S 24E	NESWSW19 24S 24E	VALENZUELA ANA CELIA			SOC 39-6575 states well use discontinued and property is served by water provider
111-24-DC-007-DM001	39-0001485, 39-0011986	WELL	SHARP, MARJORIE C.	DM	NOT EVALUATED	NOT YET DETERMINED	NESENE18 24S 24E	NESENE18 24S 24E	MINER LAWRENCE J & CATHLEEN M			SOCs indicate two wells serve this use
111-24-DC-011-DM001	39-0005763	WELL	VISION QUEST NATIONAL LTD	DM	NOT EVALUATED	NOT YET DETERMINED	NWSWSW18 24S 24E	NESWSW18 24S 24E	GUERRERO JOSE LUIS & IRMA AIDA			HSR states property partially supplied by a warter company
111-24-DC-016-DM001	39-0011692	WELL	UNITED EVANGELISM, INC.	DM	NOT EVALUATED	NOT YET DETERMINED	SWSWNW17 24S 24E	SWSWNW17 24S 24E	UNITED EVANGELISM INC			Domestic use associated with RV trailer park
111-24-DC-019-DM001	39-0000607, 39-0011985	WELL	BLOMMER, VINCE	DM	NOT EVALUATED	NOT YET DETERMINED	SESENE05 24S 24E	SESWSW05 24S 24E	ROZZANO MARY E REVOCABLE TRUST			SOC 39-607 states property served by a water provider
111-24-DC-024-DM001	39-0000342	WELL	ANDERSON, MARY NEWELL	DM	NOT EVALUATED	NOT YET DETERMINED	NWNWNW18 24S 24E	NWNWNW18 24S 24E	ROSEMEAD PROPERTIES INC			SOC 39-342 states Newell camp well is shared. No structure visible at this location in 1985 imagery.
111-24-DC-025-DM001	39-0004224	WELL	EBEWEIN, GERALD A.	DM	NOT EVALUATED	NOT YET DETERMINED	SESESE23 24S 24E	NESESE24 24S 23E	EBEWEIN, GERALD A.			No structure visible at this location in 1985 imagery.
111-24-DC-029-DM001	39-0005763	WELL	NEWELL, HARRY P & NEWELL, ETHEL W.	DM	NOT EVALUATED	NOT YET DETERMINED	NWSWSW18 24S 24E	NWSWSW18 24S 24E	HUACHUCA CITY TOWN OF			HSR states property partially supplied by a warter company
111-24-DC-029-DM002	NO WATER RIGHT AWARDED	WELL	NEWELL, HARRY P & NEWELL, ETHEL W.	DM	NOT EVALUATED	NOT YET DETERMINED	SWNWSW18 24S 24E	NWSWSW18 24S 24E	HUACHUCA CITY TOWN OF			Shared well; from water provider
111-24-DCD-010-DM001	NO WATER RIGHT AWARDED	WELL	STEWART TITLE & TRUST	DM	NOT EVALUATED	NOT YET DETERMINED	SWNENE17 24S 24E	SWNENE17 24S 24E	GOAR SHEILA IRREV QUALIFIED SUB-S			HSR states domestic served by more than one diversion
<b>San Pedro I HSR Errata</b>												
111-23-019-DM001	NO WATER RIGHT AWARDED	WELL	CLINTON, JOE A.	DM	NOT EVALUATED	NOT YET DETERMINED	SWSWSW05 24S 22E	SWSWSW05 24S 22E	SYLVESTER FAM LIV TRUST			Duplicate location of 111-23-DDA-022-DM001
111-23-DB-030-DM001	NO WATER RIGHT AWARDED	WELL	SEARS, DEBRA J.	DM	NOT EVALUATED	NOT YET DETERMINED	NESENE19 23S 21E	NESENE19 23S 21E	SEARS DEBRA J			Duplicate to WFR 111-23-db-6.
<b>Coronado National Memorial</b>												
111-23-016-DM001	39-0011130	WELL	NATIONAL PARK SERVICE	DM	NOT EVALUATED	NOT YET DETERMINED	NESWNW18 24S 21E	NESWNW18 24S 21E	NATIONAL PARK SERVICE			
111-23-016-DM002	39-0011130	WELL	NATIONAL PARK SERVICE	DM	NOT EVALUATED	NOT YET DETERMINED	NWSWNW18 24S 21E	NWSWNW18 24S 21E	NATIONAL PARK SERVICE			
111-23-016-DM003	NO WATER RIGHT AWARDED	WELL	NATIONAL PARK SERVICE	DM	NOT EVALUATED	NOT YET DETERMINED	NWSENW17 24S 21E	NWSENW17 24S 21E	NATIONAL PARK SERVICE			
111-23-016-DM004	NO WATER RIGHT AWARDED	WELL	NATIONAL PARK SERVICE	DM	NOT EVALUATED	NOT YET DETERMINED	NESWNW17 24S 21E	NWSENW17 24S 21E	NATIONAL PARK SERVICE			
<b>San Pedro Riparian National Conservation Area (SPRNCA)</b>												
111-24-CCB-011-DM001	39-0000972, 39-0014491	WELL	BLM - SAFFORD DISTRICT	DM	NOT EVALUATED	NOT YET DETERMINED	SWNWNW03 24S 22E	NWSWNW03 24S 22E	BLM - SAFFORD DISTRICT			HSR states more than one PWR being served by well



Table 3-1. Results of Hydrologic Analyses within the Demonstration Project Area

Well Map No.	Well Name	MODFLOW* Well Layer	MODFLOW Well Row	MODFLOW Well Column	MODFLOW Sfg** Row	MODFLOW SFZ Column	Steady state pumping rate shown in assigned model layer - Q (gpm)	MODFLOW Distance (ft) well to max sfz drawdown for each model layer	AquiferWin32© Shortest Distance (ft) well to sfz	MODFLOW transmissivity at well (ft2/day) by layer	MODFLOW Total transmissivity at well (ft2/day)	AquiferWin32© transmissivity at well (ft2/day)	AquiferWin32© hydraulic conductivity (K) at well (ft/day)	AquiferWin32© Aquifer Thickness at well (ft)	MODFLOW Drawdown (ft) at sfz boundary cells for each model layer (maximum exclusive of layer 5 is shaded)	AquiferWin32© Drawdown (ft) at sfz boundary	Difference between MODFLOW and AquiferWin32© drawdowns (absolute value)	Comments
1	111-23-ADC-031-W1	1	206	196	248	204		35,059	17,748	0	9,833	967.6	8.2	118	0.016	0.099	0.079	
		2	206	196	118	131	6.8	89,710		4,397					0.016			
		3	206	196	173	208		28,793		11					0.020			
		4	206	196	172	208		29,566		5,286					0.020			
		5	206	196	215	218		19,491		139					0.036			
2	111-23-ADC-059-W1	1	197	189	248	204		43,591	21,416	0	8,139	1,340.0	13.4	100	0.020	0.111	0.059	
		2	197	189	117	132		80,548		0					0.043			
		3	197	189	174	208		24,463		0					0.049			
		4	197	189	174	208	12.1	24,463		8,038					0.052			
		5	197	189	174	208		24,463		101					0.075			
3	111-23-ADC-060-W1	1	196	189	247	205		43,830	21,181	0	8,179	837.4	7.9	106	0.013	0.110	0.077	
		2	196	189	118	131		79,705		0					0.026			
		3	196	189	173	208		24,463		0					0.030			
		4	196	189	174	208	7.3	23,836		8,078					0.033			
		5	196	189	173	208		24,463		101					0.046			
4	111-23-DAD-006-W6	1	228	213	228	217		3,280	3,155	0	627	2,750.0	12.5	220	3.208	5.620	31.132	
		2	228	213	229	216	390.7	2,593		449					36.752			
		3	228	213	229	216		2,593		5					26.991			
		4	228	213	229	216		2,593		33					18.962			
		5	228	213	229	216		2,593		139					3.641			
5	111-23-DDA-006-W1	1	233	205	235	215		8,362	7,852	361	558	1,006.5	6.1	165	0.404	1.710	0.913	
		2	233	205	235	215	71.3	9,598		44					0.748			
		3	233	205	237	214		9,349		11					0.797			
		4	233	205	231	216		9,349		3					0.797			
		5	233	205	104	156		9,349		139					0.410			
6	111-23-DDA-016-W1	1	233	208	235	215	11.0	5,970	5,674	667	1,312	2,746.8	21.8	126	0.115	0.105	0.010	
		2	233	208	237	214		5,913		432					0.112			
		3	233	208	235	215		5,970		43					0.112			
		4	233	208	235	215		5,970		31					0.105			
		5	233	208	229	216		7,334		139					0.036			
7	111-23-DDA-022-W1	1	241	208	245	208	395.8	3,280	3,054	1,730	12,690	1,837.5	12.5	147	1.440	8.220	6.701	
		2	241	208	245	208		3,280		7,114					1.496			
		3	241	208	245	208		3,280		2,163					1.506			
		4	241	208	245	208		3,280		1,544					1.519			
		5	241	208	245	208		3,280		139					0.663			
8	111-23-DDA-023-W1	1	234	207	235	215	19.8	6,611	6,341	845	1,482	4,800.8	35.3	136	0.164	0.109	0.065	
		2	234	207	238	213		5,913		425					0.174			
		3	234	207	238	213		5,913		43					0.167			
		4	234	207	238	213		5,913		31					0.161			
		5	234	207	229	216		8,442		139					0.059			
9	111-24-CBB-001-W1	1	219	217	217	223		5,186	1,123	0	630	2,525.8	34.6	73	0.479	1.620	9.650	
		2	219	217	219	218	70.6	820		450					11.270			
		3	219	217	219	218		820		5					5.438			
		4	219	217	219	218		820		36					2.352			
		5	219	217	219	218		820		139					0.512			
10	111-24-CBC-022-W1	1	232	216	235	215		2,593	19	0	634	877.2	12.9	68	0.082	2.300	0.291	
		2	232	216	232	216	13.4	0		414					2.591			
		3	232	216	232	216		0		43					1.105			
		4	232	216	232	216		0		38					0.610			
		5	232	216	230	216		1,640		139					0.069			
11	111-24-CBC-063-W1	1	222	217	217	223		6,405	1,228	0	606	4,989.6	89.1	56	0.036	0.089	0.869	
		2	222	217	223	218	7.7	1,160		424					0.958			
		3	222	217	223	218		1,160		5					0.541			
		4	222	217	223	218		1,160		38					0.249			
		5	222	217	218	218		3,381		139					0.052			



Table 3-1. Results of Hydrologic Analyses within the Demonstration Project Area

Well Map No.	Well Name	MODFLOW* Well Layer	MODFLOW Well Row	MODFLOW Well Column	MODFLOW Sfz** Row	MODFLOW SFZ Column	Steady state pumping rate shown in assigned model layer - Q (gpm)	MODFLOW Distance (ft) well to max sfz drawdown for each model layer	AquiferWin32© Shortest Distance (ft) well to sfz	MODFLOW transmissivity at well (ft2/day) by layer	MODFLOW Total transmissivity at well (ft2/day)	AquiferWin32© transmissivity at well (ft2/day)	AquiferWin32© hydraulic conductivity (K) at well (ft/day)	AquiferWin32© Aquifer Thickness at well (ft)	MODFLOW Drawdown (ft) at sfz boundary cells for each model layer (maximum exclusive of layer 5 is shaded)	AquiferWin32© Drawdown (ft) at sfz boundary	Difference between MODFLOW and AquiferWin32© drawdowns (absolute value)	Comments
12	111-24-CBC-072-W1	1	220	216	217	223		6,245	1,802	0	646	3,013.0	26.2	115	0.046	0.120	0.752	
		2	220	216	219	218	8.4	1,834		470					0.872			
		3	220	216	219	218		1,834		5					0.541			
		4	220	216	219	218		1,834		32					0.282			
		5	220	216	218	218		2,319		139					0.066			
13	111-24-CBC-078-W1	1	221	214	217	223		8,076	3,155	0	667	3,300.0	13.2	250	0.216	0.690	2.820	
		2	221	214	219	218	47.5	3,667		495					3.510			
		3	221	214	219	218		3,667		5					2.549			
		4	221	214	225	217		4,100		27					1.663			
		5	221	214	219	218		3,667		139					0.417			
14	111-23-041-W1	1	195	150	93	185		88,427	50,874	0	33	3,270.0	10.0	327	0.003	0.004	0.019	SEE NOTES ***
		2	195	150	118	131		65,034		0					0.023			
		3	195	150	118	130		65,235		0					0.020			
		4	195	150	118	130		65,235		0					0.020			
		5	195	150	163	205	3.1	52,178		33					0.049			
15	111-23-BDCA-009-W1	1	200	146	247	205		61,854	55,435	0	10	200.0	2.0	100	0.013	0.516	0.418	SEE NOTES ****
		2	200	146	118	130		68,508		0					0.098			
		3	200	146	118	130		68,508		0					0.095			
		4	200	146	118	130		68,508		0					0.085			
		5	200	146	163	205	14.1	57,106		10					0.187			
16	111-20-062-W22N	1	200	160	247	205		53,357	44,731	0	10	806.4	22.4	36	0.007	0.059	0.039	
		2	200	160	118	131		71,321		0					0.020			
		3	200	160	118	130		71,599		0					0.020			
		4	200	160	118	130		71,599		0					0.020			
		5	200	160	173	208	4.2	45,160		10					0.072			
17	111-23-066-W1	1	196	183	247	205		45,545	25,829	0	6,645	267.3	2.7	99	0.010	0.211	0.191	
		2	196	183	118	131		76,870		0					0.020			
		3	196	183	118	130		77,328		0					0.020			
		4	196	183	172	208	5.0	28,418		6,544					0.020			
		5	196	183	174	208		27,307		101					0.033			
18	111-23-025-W1	1	199	175	247	205		46,415	33,171	0	136	12,800.0	51.2	250	0.020	0.010	0.042	
		2	199	175	118	131		75,587		0					0.046			
		3	199	175	174	208		33,948		0					0.049			
		4	199	175	174	208	12.3	33,948		35					0.052			
		5	199	175	174	208		33,948		101					0.098			
19	111-23-025-W2	1	200	175	245	208		45,759	33,024	0	133	7,168.5	29.5	243	0.007	0.006	0.010	
		2	200	175	118	131		76,309		0					0.016			
		3	200	175	118	130		76,700		0					0.016			
		4	200	175	172	208	4.0	35,488		32					0.016			
		5	200	175	172	208		35,488		101					0.033			
20	111-23-030-W14	1	204	169	250	203		46,905	38,986	0	60	832.0	6.4	130	0.010	0.084	0.035	
		2	204	169	118	131		77,097		0					0.020			
		3	204	169	196	217		39,903		0					0.030			
		4	204	169	202	218		40,213		0					0.049			
		5	204	169	187	213	7.2	38,679		60					0.187			
21	111-23-030-W13	1	205	169	247	205		45,360	39,149	0	59	1,132.2	10.2	111	0.013	0.062	0.013	
		2	205	169	118	131		77,848		0					0.020			
		3	205	169	173	208		41,367		0					0.030			
		4	205	169	187	213		38,982		0					0.049			
		5	205	169	187	213	7.2	38,982		59					0.187			
22	111-23-028-W1	1	208	172	245	208		42,331	37,590	0	59	6,660.0	36.0	185	0.007	0.006	0.024	
		2	208	172	117	132		81,511		0					0.013			
		3	208	172	196	217		38,189		0					0.020			
		4	208	172	187	213		37,773		0					0.030			
		5	208	172	215	218	4.0	38,154		59					0.112			





**Table 3-1. Results of Hydrologic Analyses within the Demonstration Project Area**

Well Map No.	Well Name	MODFLOW* Well Layer	MODFLOW Well Row	MODFLOW Well Column	MODFLOW Sfz** Row	MODFLOW SFZ Column	Steady state pumping rate shown in assigned model layer - Q (gpm)	MODFLOW Distance (ft) well to max sfz drawdown for each model layer	AquiferWin32® Shortest Distance (ft) well to sfz	MODFLOW transmissivity at well (ft <sup>2</sup> /day) by layer	MODFLOW Total transmissivity at well (ft <sup>2</sup> /day)	AquiferWin32® transmissivity at well (ft <sup>2</sup> /day)	AquiferWin32® hydraulic conductivity (K) at well (ft/day)	AquiferWin32® Aquifer Thickness at well (ft)	MODFLOW Drawdown (ft) at sfz boundary cells for each model layer (maximum exclusive of layer 5 is shaded)	AquiferWin32® Drawdown (ft) at sfz boundary	Difference between MODFLOW and AquiferWin32® drawdowns (absolute value)	Comments
23	111-23-030-W3	1	209	168	247	205		43,491	41,092	0	59	9,596.5	112.9	85	0.013	0.007	0.042	
		2	209	168	118	131		80,552		0					0.020			
		3	209	168	196	217		41,570		0					0.030			
		4	209	168	202	218		41,400		0					0.049			
		5	209	168	215	218	7.2	41,294		59					0.187			
24	111-23-029-W1	1	213	168	247	205		41,204	40,952	0	10	2,934.8	50.6	58	0.010	0.020	0.019	
		2	213	168	118	131		83,600		0					0.016			
		3	213	168	219	218		41,294		0					0.026			
		4	213	168	217	218		41,131		0					0.039			
		5	213	168	215	218	5.7	41,033		10					0.151			
25	111-20-062-W17	1	226	169	247	205		34,175	33,892	0	29	1,440.6	4.9	294	0.033	0.287	0.169	SEE NOTES ***
		2	226	169	225	217		39,369		0					0.033			
		3	226	169	225	217		39,369		0					0.075			
		4	226	169	223	218		40,255		0					0.118			
		5	226	169	229	216	18.2	38,618		29					0.502			
26	111-20-062-W18	1	229	168	248	204		33,379	33,459	0	28	20.7	0.2	104	0.013	5.870	5.824	SEE NOTES ***
		2	229	168	117	132		96,468		0					0.013			
		3	229	168	219	218		41,812		0					0.030			
		4	229	168	223	218		41,294		0					0.046			
		5	229	168	247	205	7.5	33,740		28					0.200			
27	111-23-027-W2	1	230	204	235	215		9,908	9,661	0	198	679.5	1.5	453	0.144	1.060	0.538	
		2	230	204	229	216	35.4	9,874		45					0.495			
		3	230	204	229	216		9,874		11					0.518			
		4	230	204	229	216		9,874		3					0.522			
		5	230	204	229	216		9,874		139					0.348			
28	111-24-CCB-002-W1	1	234	227	236	220		5,970	3,858	0	8,210	21,618.6	52.6	411	0.708	0.220	1.597	
		2	234	227	234	222	129.4	4,100		5,868					1.804			
		3	234	227	234	222		4,100		2,150					1.817			
		4	234	227	234	222		4,100		52					1.778			
		5	234	227	234	222		4,100		139					1.296			
29	111-24-CBC-005-W1	1	223	227	217	223		5,913	2,744	0	487	1,862.6	13.4	139	0.341	1.550	0.247	
		2	223	227	222	223	70.0	3,381		289					1.797			
		3	223	227	223	223		3,280		5					1.453			
		4	223	227	223	223		3,280		53					1.033			
		5	223	227	209	225		11,596		139					0.725			
30	111-24-BDC-008-W1	1	203	252	217	223		26,406	23,089	0	18	42.6	0.3	142	0.075	11.310	11.028	
		2	203	252	209	225		22,680		0					0.282			
		3	203	252	185	218		31,546		0					0.315			
		4	203	252	193	222		25,931		0					0.499			
		5	203	252	200	223	22.7	23,907		18					0.531			
31	111-24-086-W1	1	245	275	93	185		144,850	44,202	0	3,492	504.9	2.7	187	0.003	0.009	0.002	
		2	245	275	211	224		50,261		0					0.007			
		3	245	275	231	222		44,951		0					0.007			
		4	245	275	192	217	0.5	64,426		1,071					0.007			
		5	245	275	197	218		61,105		2,421					0.007			
32	111-24-075-(59)-W1	1	246	276	242	217		48,491	45,330	0	3,485	2,740.5	10.5	261	0.853	0.468	1.280	
		2	246	276	234	222		45,360		0					1.620			
		3	246	276	234	222		45,360		0					1.689			
		4	246	276	234	222	176.4	45,360		1,064					1.748			
		5	246	276	209	225		51,667		2,421					1.998			
33	111-24-075-(59)-W3	1	246	276	242	217		48,491	45,338	0	3,485	2,698.5	10.5	257	0.853	0.478	1.270	
		2	246	276	234	222		45,360		0					1.620			
		3	246	276	234	222		45,360		0					1.689			
		4	246	276	234	222	176.4	45,360		1,064					1.748			
		5	246	276	209	225		51,667		2,421					1.998			



Table 3-1. Results of Hydrologic Analyses within the Demonstration Project Area

Well Map No.	Well Name	MODFLOW* Well Layer	MODFLOW Well Row	MODFLOW Well Column	MODFLOW Sfz** Row	MODFLOW SFZ Column	Steady state pumping rate shown in assigned model layer - Q (gpm)	MODFLOW Distance (ft) well to max sfz drawdown for each model layer	AquiferWin32© Shortest Distance (ft) well to sfz	MODFLOW transmissivity at well (ft2/day) by layer	MODFLOW Total transmissivity at well (ft2/day)	AquiferWin32© transmissivity at well (ft2/day)	AquiferWin32© hydraulic conductivity (K) at well (ft/day)	AquiferWin32© Aquifer Thickness at well (ft)	MODFLOW Drawdown (ft) at sfz boundary cells for each model layer (maximum exclusive of layer 5 is shaded)	AquiferWin32© Drawdown (ft) at sfz boundary	Difference between MODFLOW and AquiferWin32© drawdowns (absolute value)	Comments
34	111-24-075-(59)-W2	1	246	277	242	217		49,309	45,809	0	3,455	1,995.0	10.5	190	0.853	0.639	1.109	
		2	246	277	234	222		46,161		0					1.620			
		3	246	277	234	222		46,161		0					1.689			
		4	246	277	234	222	176.4	46,161		1,034					1.748			
		5	246	277	209	225		52,332		2,421					1.998			
35	111-24-075-(59)-W4N	1	246	278	242	217		50,128	46,485	0	3,438	11,634.0	10.5	1,108	0.853	0.107	1.641	
		2	246	278	234	222		46,962		0					1.620			
		3	246	278	234	222		46,962		0					1.689			
		4	246	278	234	222	176.4	46,962		1,017					1.748			
		5	246	278	209	225		53,003		2,421					1.998			
36	111-24-060-W6N	1	250	280	242	217		52,075	48,909	0	3,365	2,820.0	9.4	300	0.056	0.027	0.085	
		2	250	280	234	222		49,336		0					0.102			
		3	250	280	234	222		49,336		0					0.108			
		4	250	280	194	222	11.2	66,110		944					0.112			
		5	250	280	206	224		58,399		2,421					0.125			
37	111-24-060-W2	1	251	281	242	217		52,996	50,298	0	3,305	1,026.6	11.8	87	0.056	0.072	0.040	
		2	251	281	234	222		50,348		0					0.102			
		3	251	281	234	222		50,348		0					0.108			
		4	251	281	195	222	11.2	66,703		884					0.112			
		5	251	281	206	224		59,550		2,421					0.125			
38	111-24-DCD-012-W1	1	248	283	242	217		54,343	50,997	0	3,528	1,928.5	13.3	145	0.922	0.654	1.232	
		2	248	283	234	222		51,321		0					1.752			
		3	248	283	234	222		51,321		0					1.824			
		4	248	283	234	222	190.5	51,321		1,107					1.886			
		5	248	283	209	225		57,312		2,421					2.155			
39	111-24-DCD-010-W4	1	245	290	242	217		59,911	56,497	0	4,387	1,276.8	11.2	114	1.938	1.990	1.989	
		2	245	290	234	222		56,485		0					3.690			
		3	245	290	234	222		56,485		0					3.847			
		4	245	290	234	222	399.9	56,485		1,966					3.979			
		5	245	290	209	225		60,929		2,421					4.559			
40	111-24-060-W8N	1	244	304	242	217		71,359	67,285	0	2,329	577.5	2.1	275	0.056	0.115	0.003	
		2	244	304	234	222		67,738		0					0.102			
		3	244	304	234	222		67,738		0					0.108			
		4	244	304	195	222		78,330		0					0.112			
		5	244	304	206	224	11.2	72,624		2,329					0.125			
41	111-24-060-W7N	1	251	281	242	217		52,996	50,286	0	3,305	2,230.2	11.8	189	0.056	0.033	0.079	
		2	251	281	234	222		50,348		0					0.102			
		3	251	281	234	222		50,348		0					0.108			
		4	251	281	195	222	11.2	66,703		884					0.112			
		5	251	281	206	224		59,550		2,421					0.125			

NOTES:  
\* USGS Upper San Pedro Groundwater Model  
\*\* Proposed subflow zone  
\*\*\* Bottom of the well was above the simulated MODFLOW SS Head. The shallowest historical water level from the GWSI database of water levels was used instead as the initial steady state head in AquiferWin32©.  
\*\*\*\* Bottom of the well was above the simulated MODFLOW SS Head. No well depth information was available. Aquifer thickness was assumed to be 100 ft

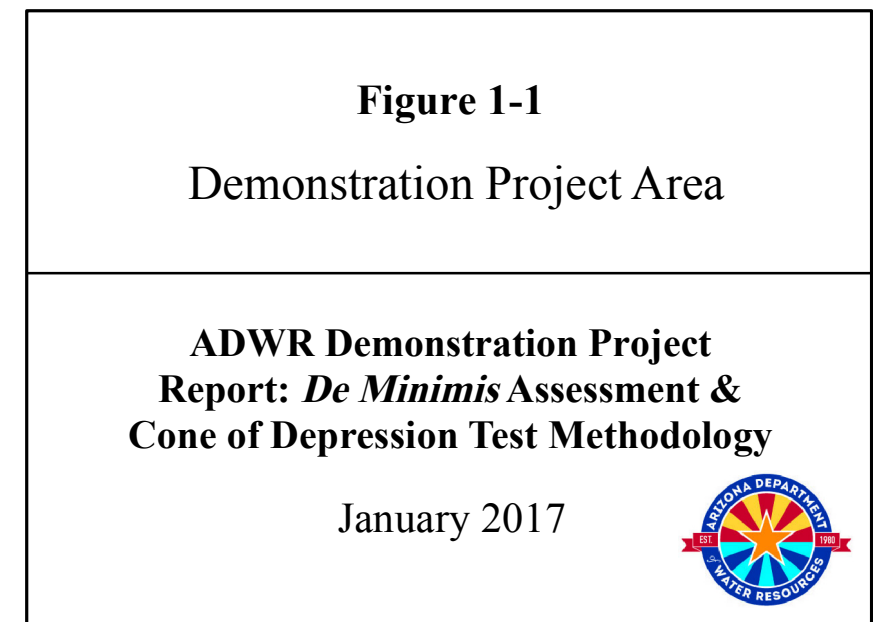
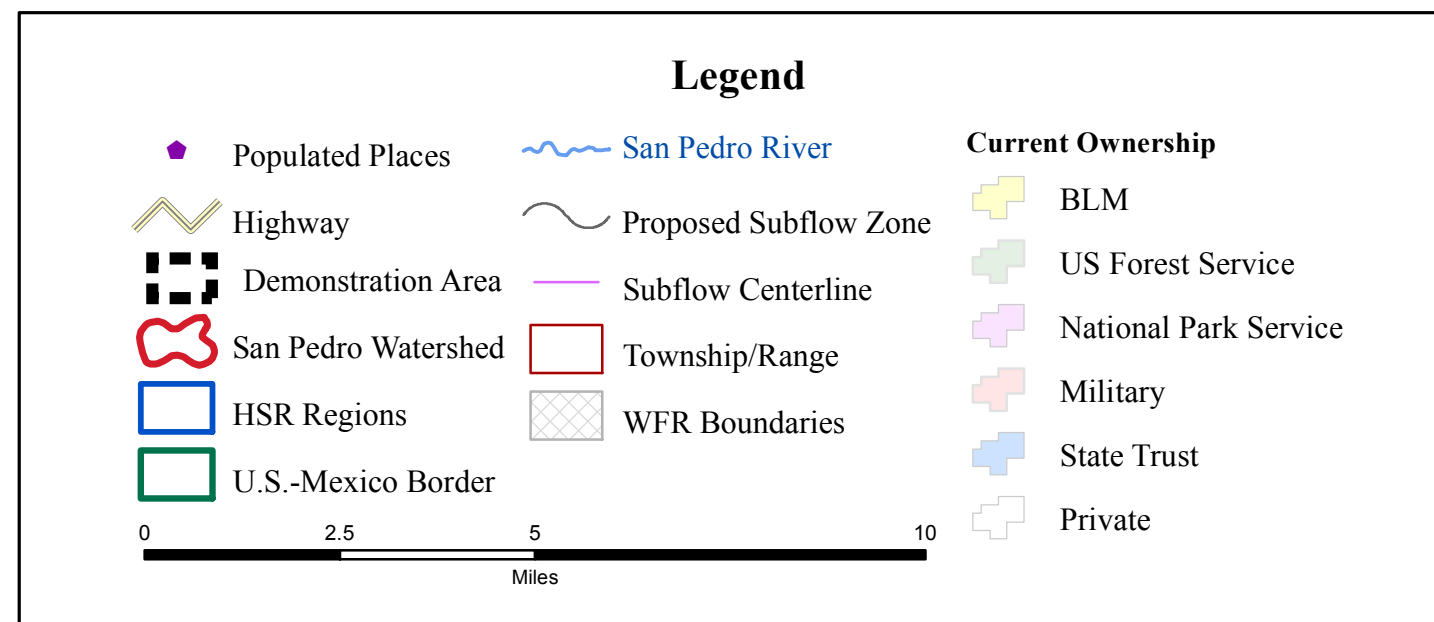
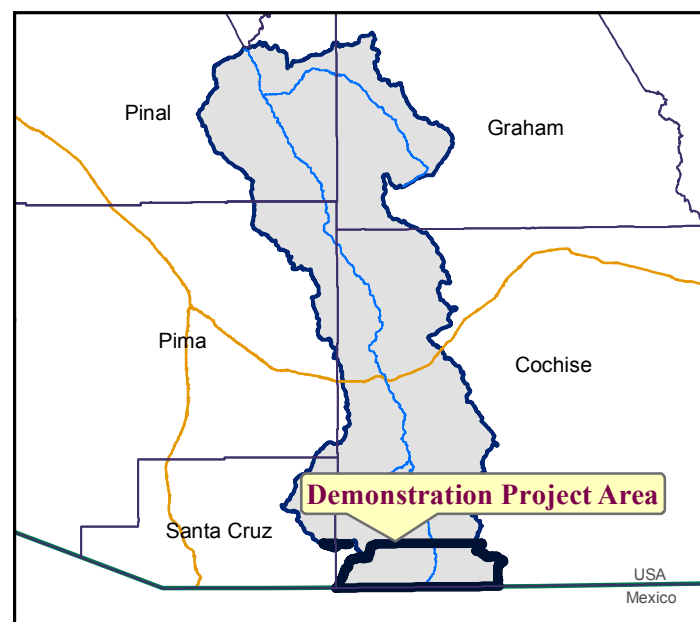
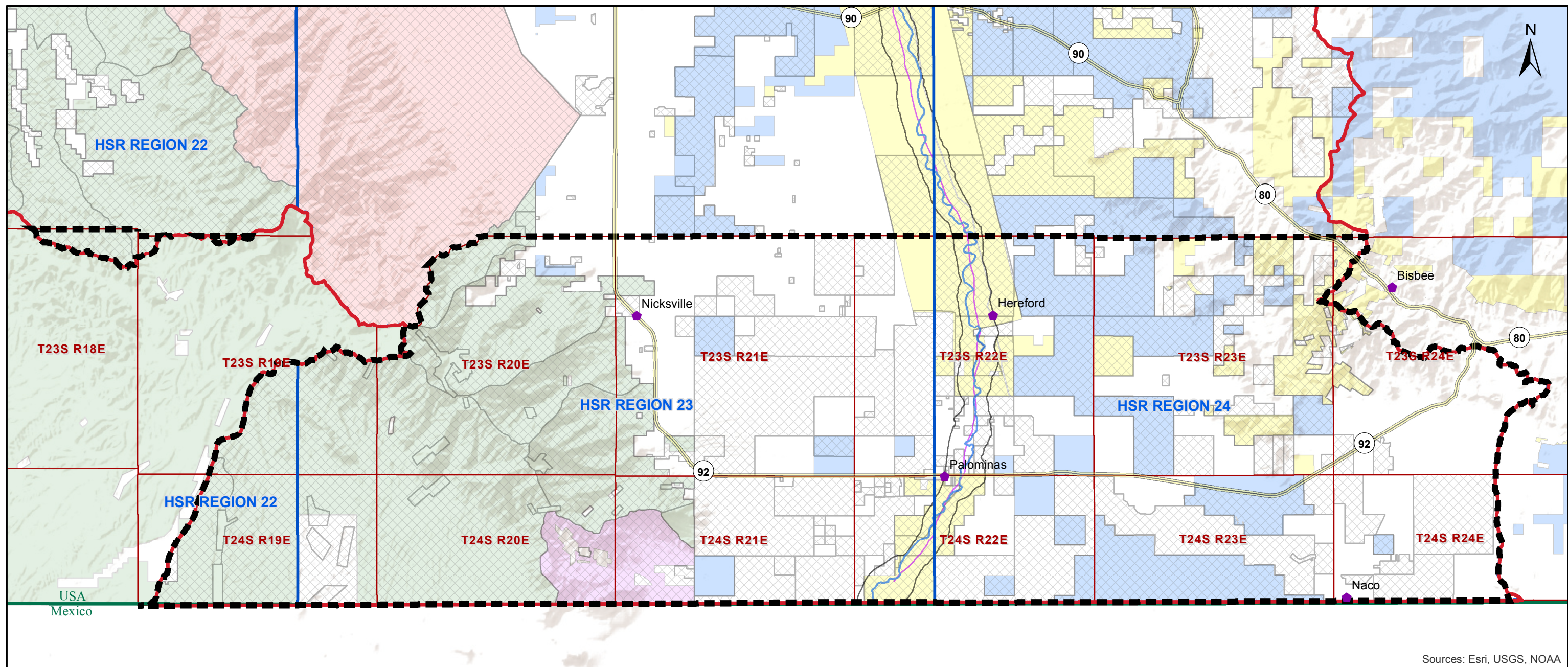
	Count	Percent
Concur	32	78
AquiferWin32© In / MODFLOW Out	5	12
MODFLOW In / AquiferWin32© Out	4	10
TOTAL	41	100

In = Simulated Steady-State drawdown at the Proposed Sub-flow Zone Boundary ≥ 0.10 ft.  
Out = Simulated Steady-State drawdown at the Proposed Sub-flow Zone Boundary < 0.10 ft.

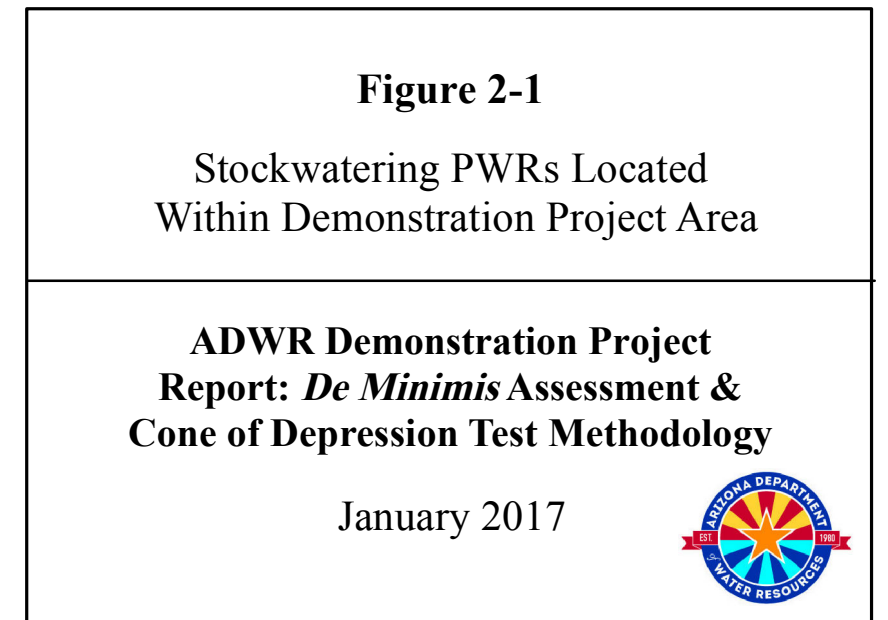
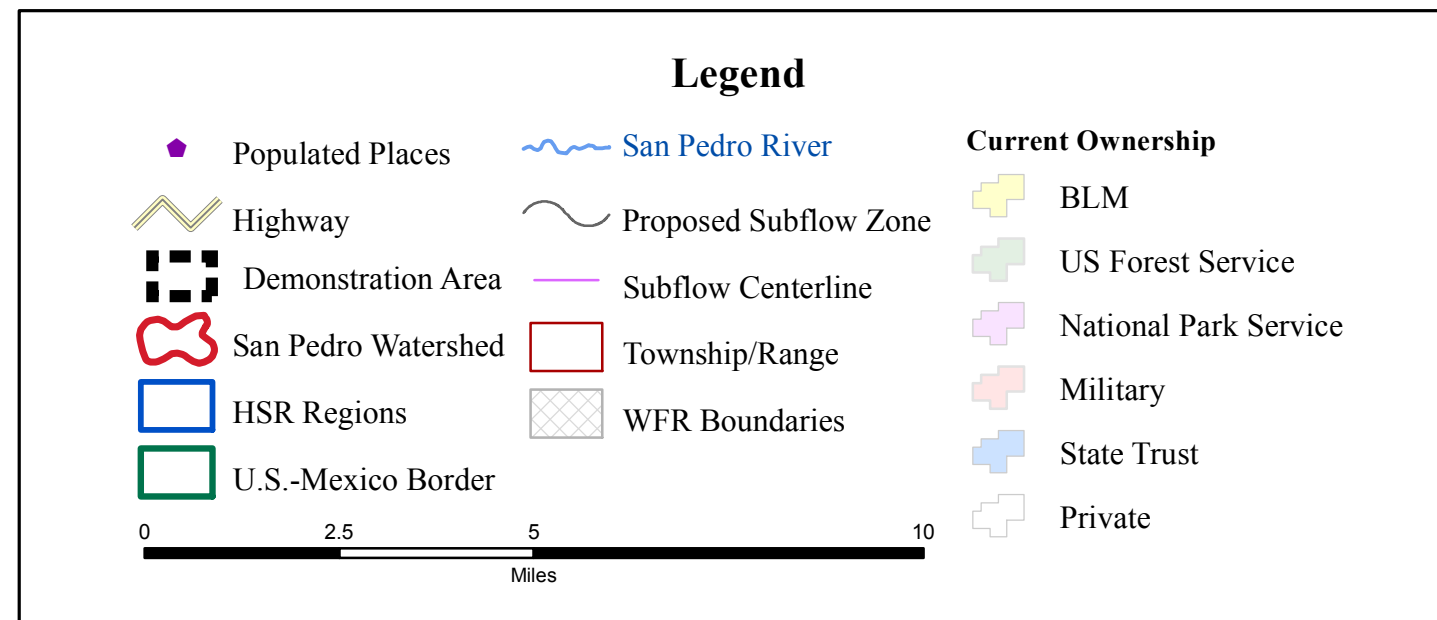
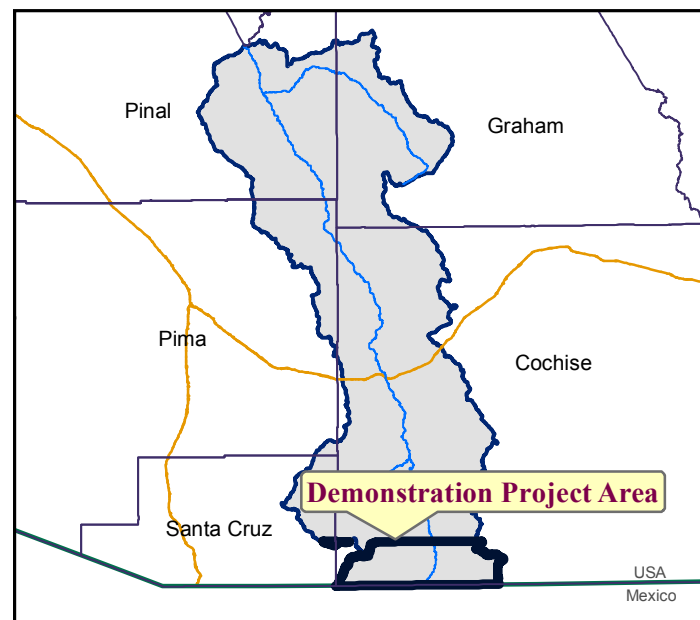
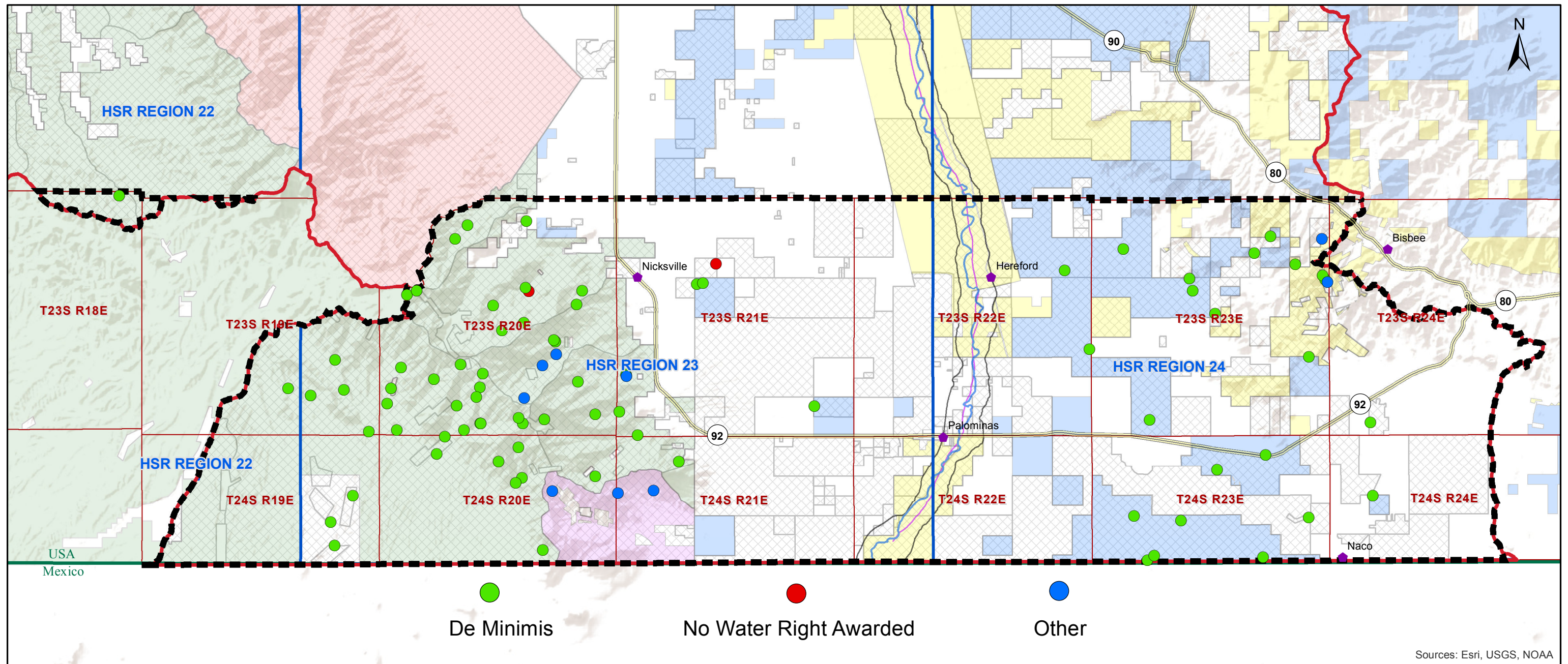


# FIGURES

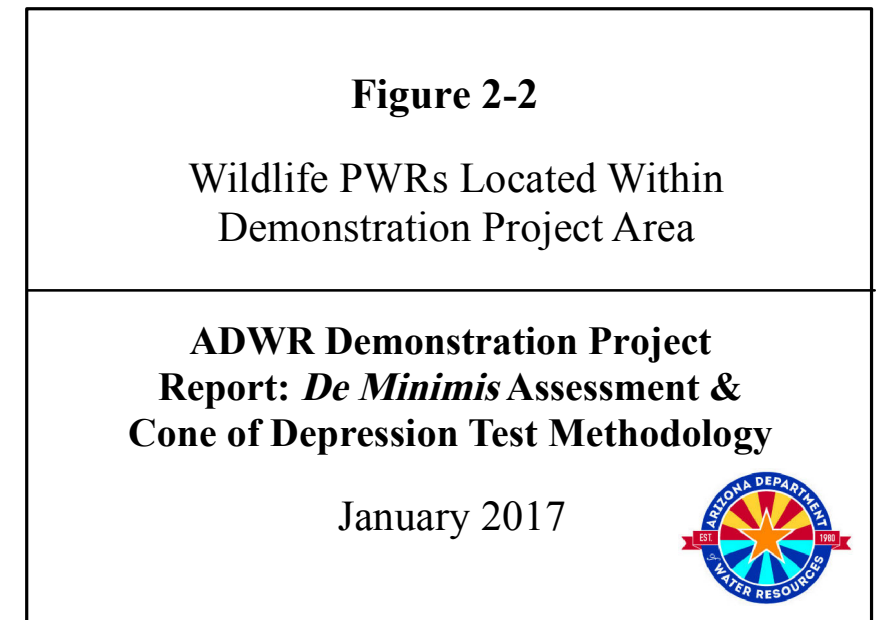
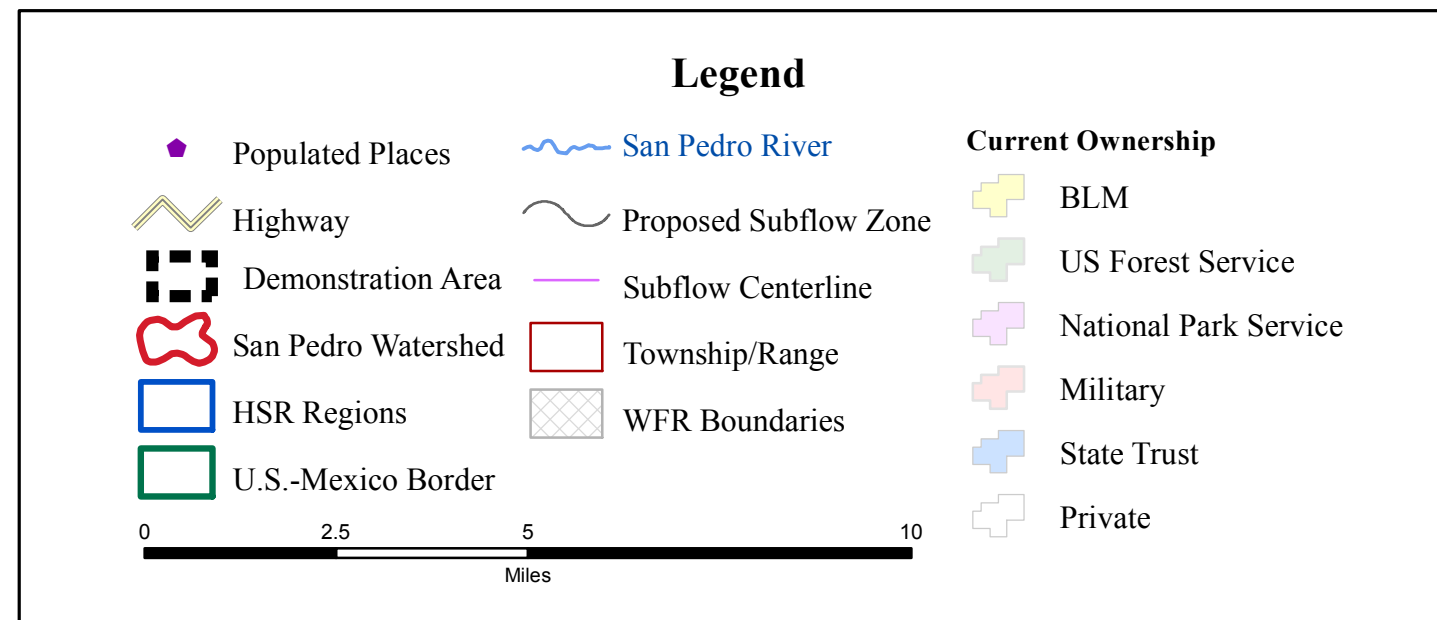
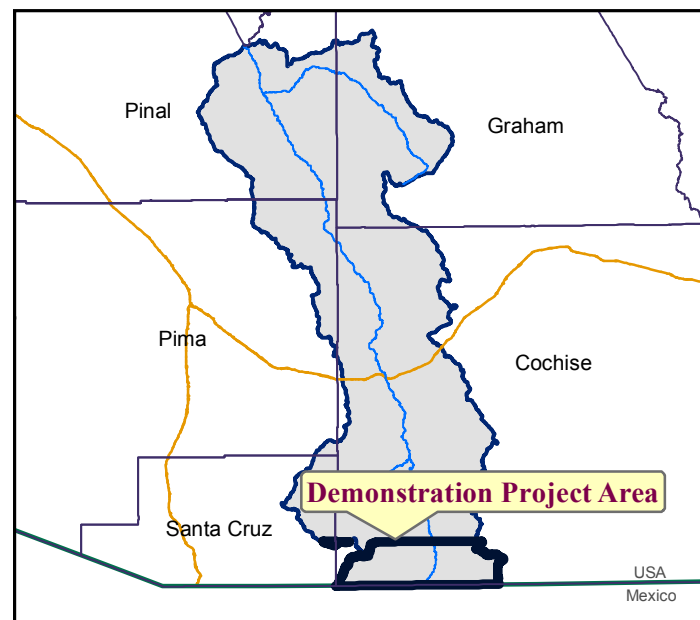
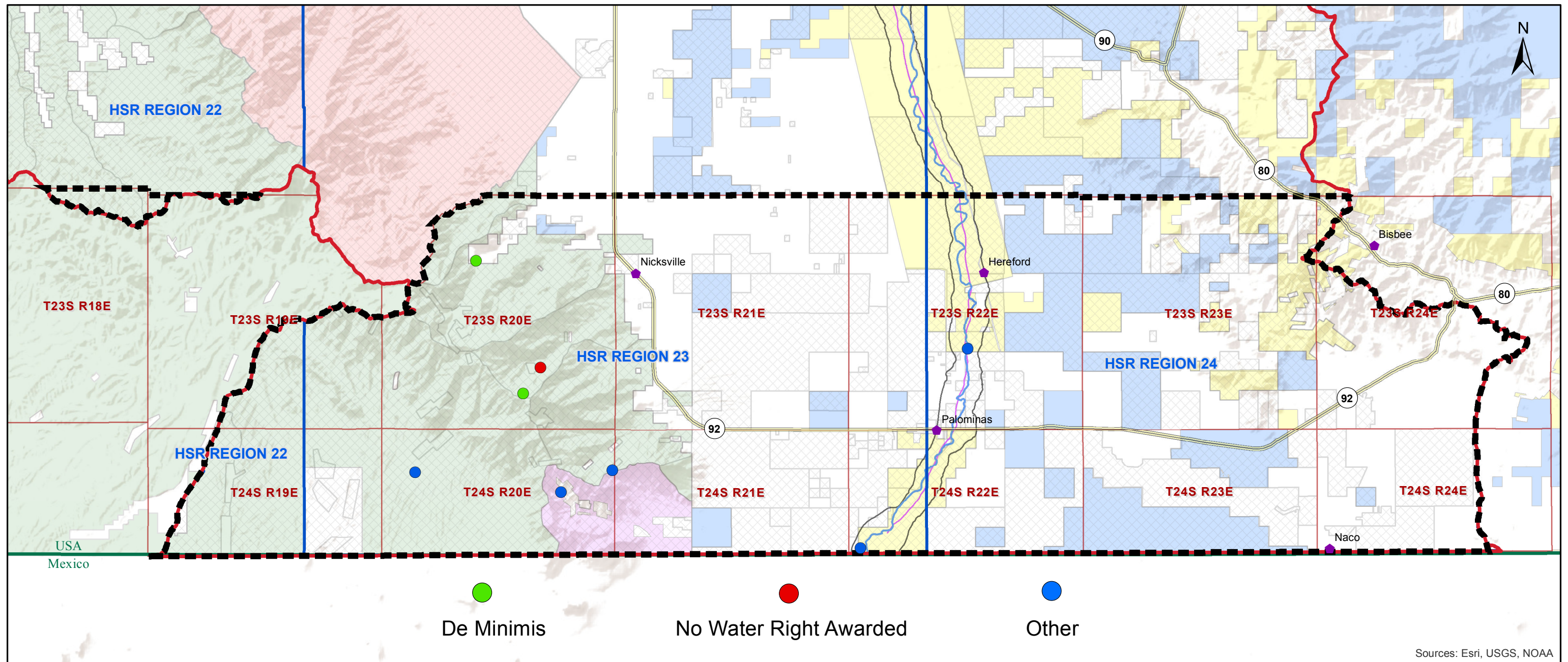




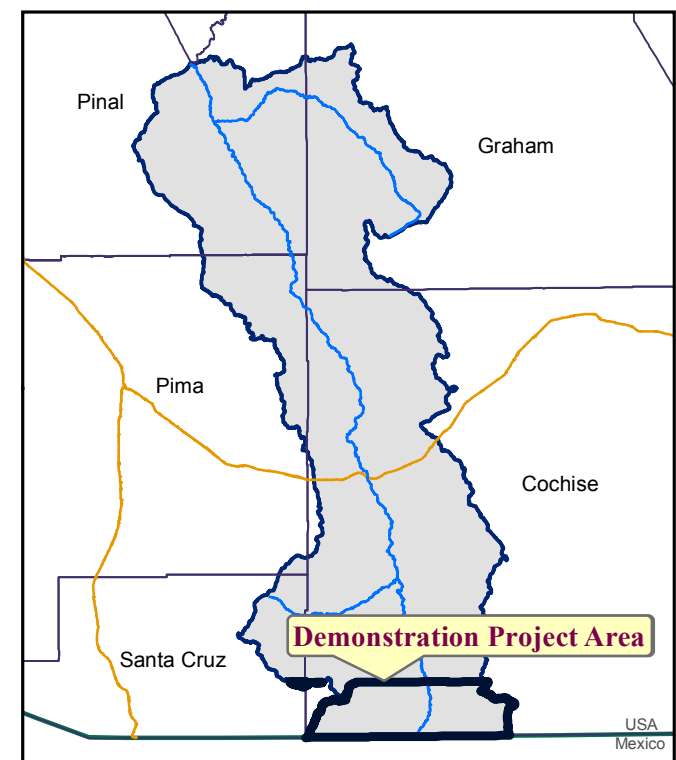
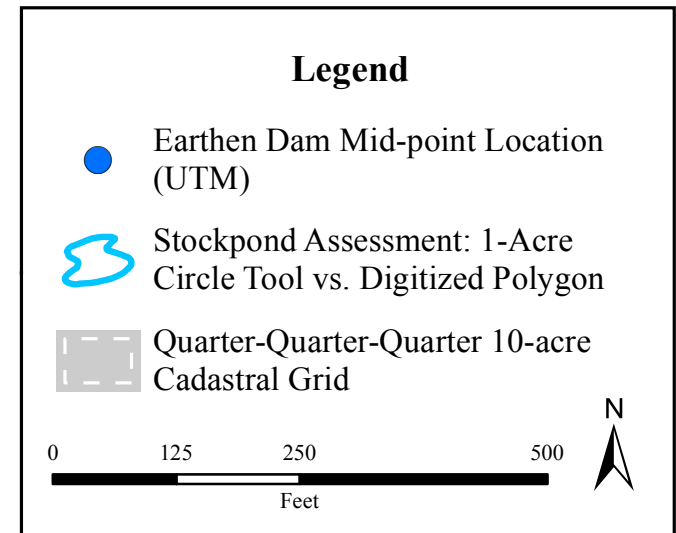
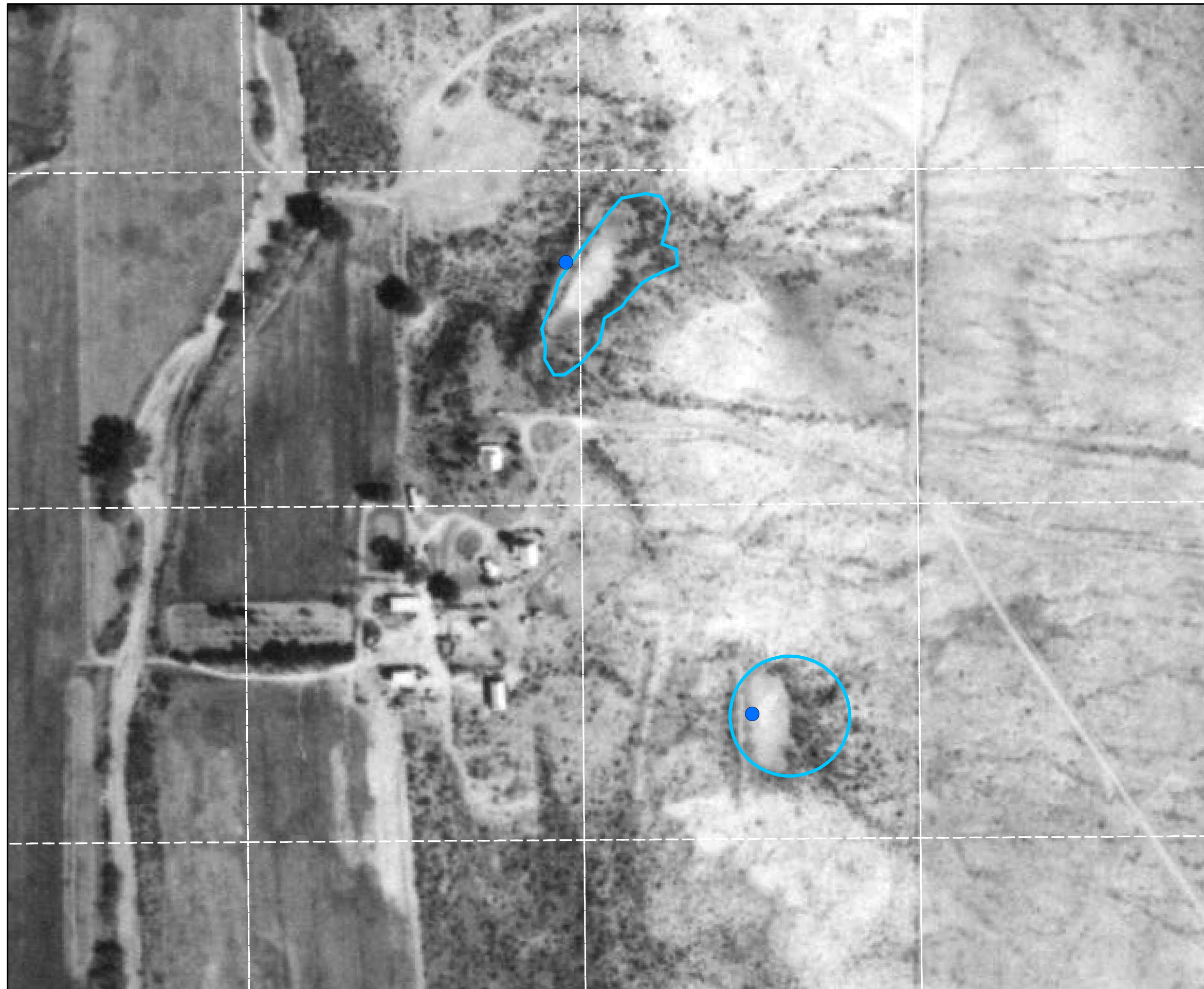













**Figure 2-3**

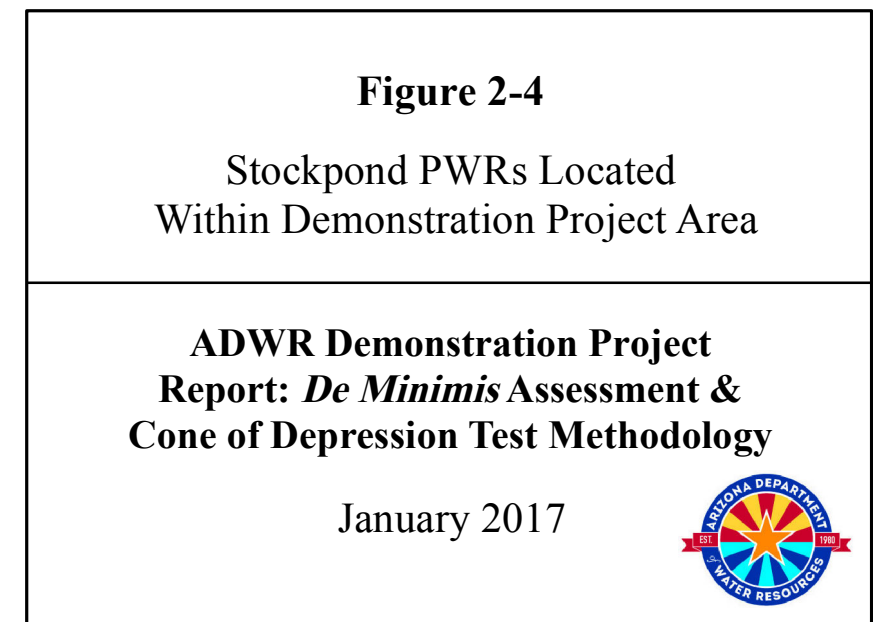
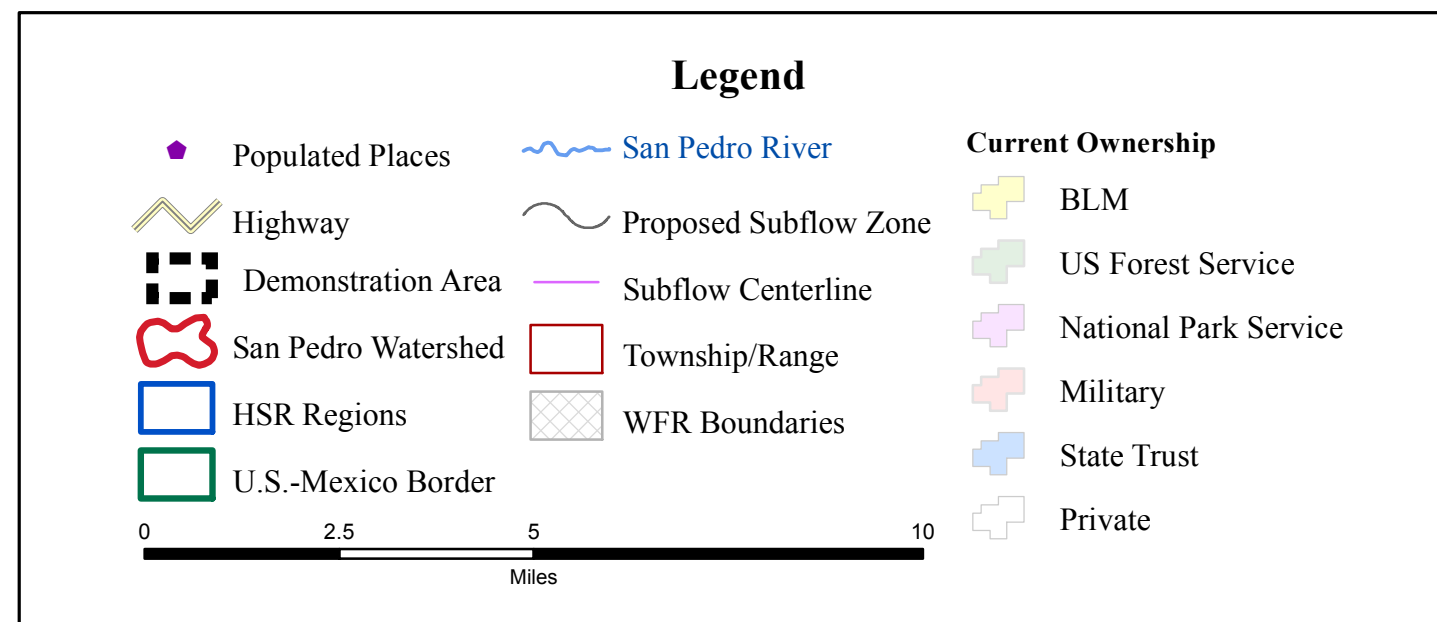
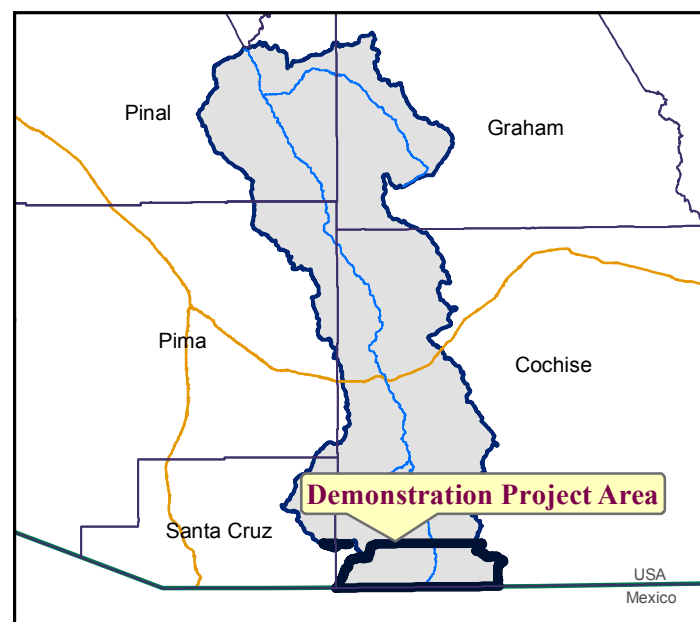
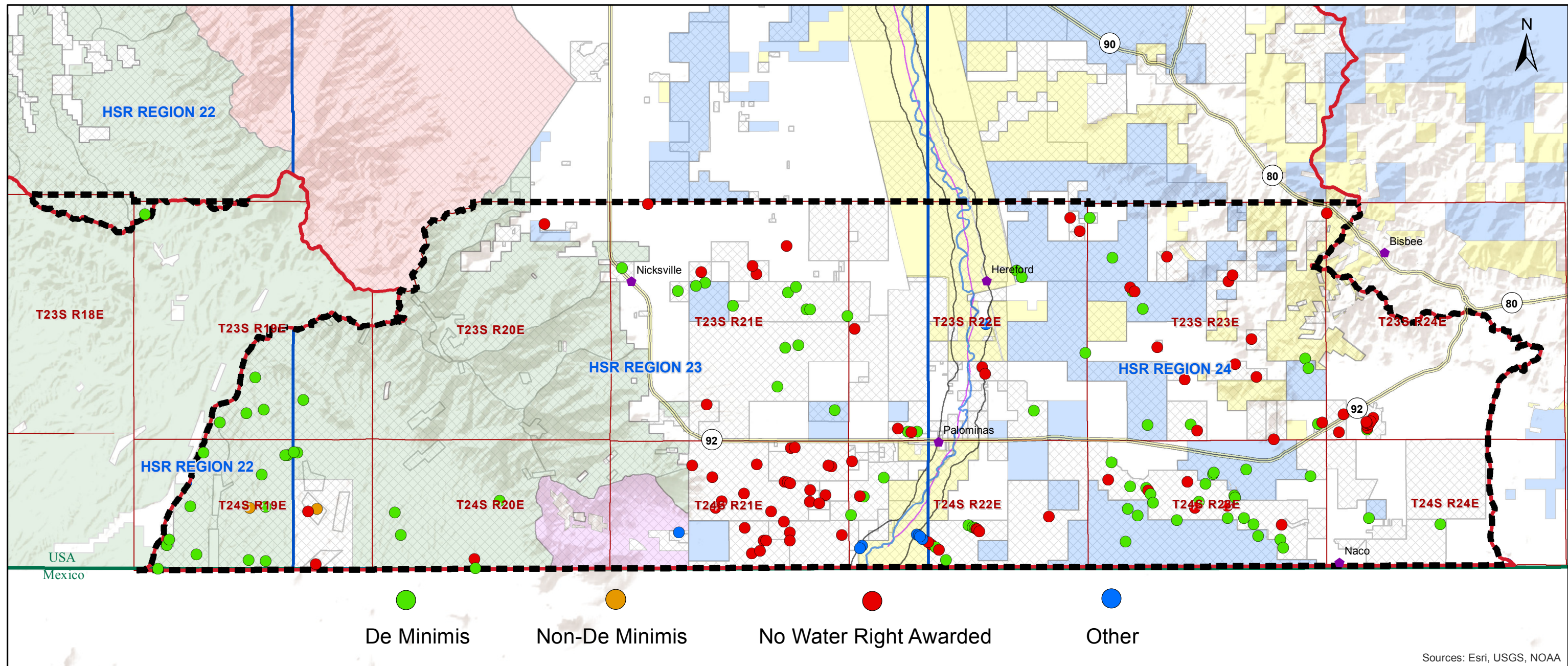
Examples of Methodologies Used to Determine Stockpond Surface Areas (1-Acre Circle tool and Digitized Polygon)

**ADWR Demonstration Project Report:  
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Cone of Depression Methodology**

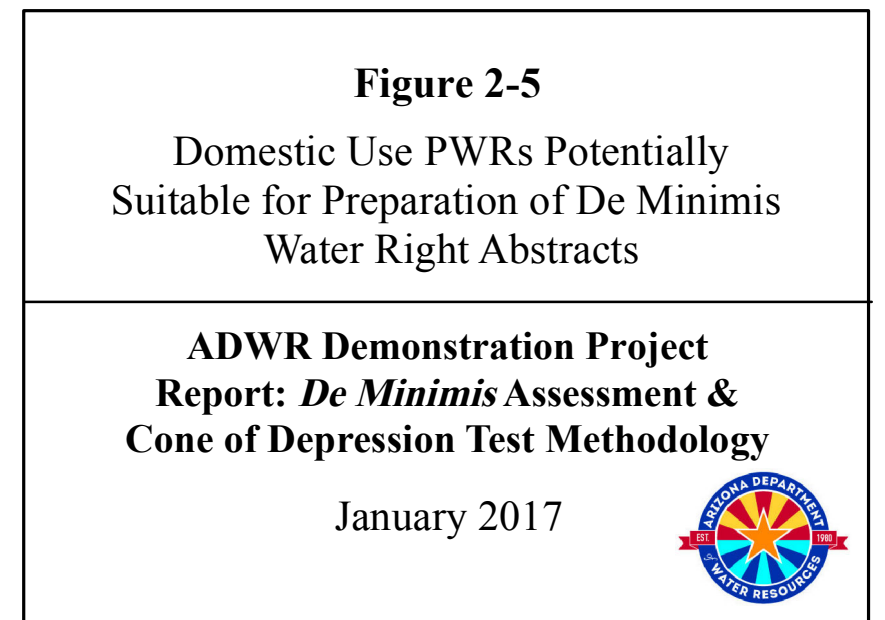
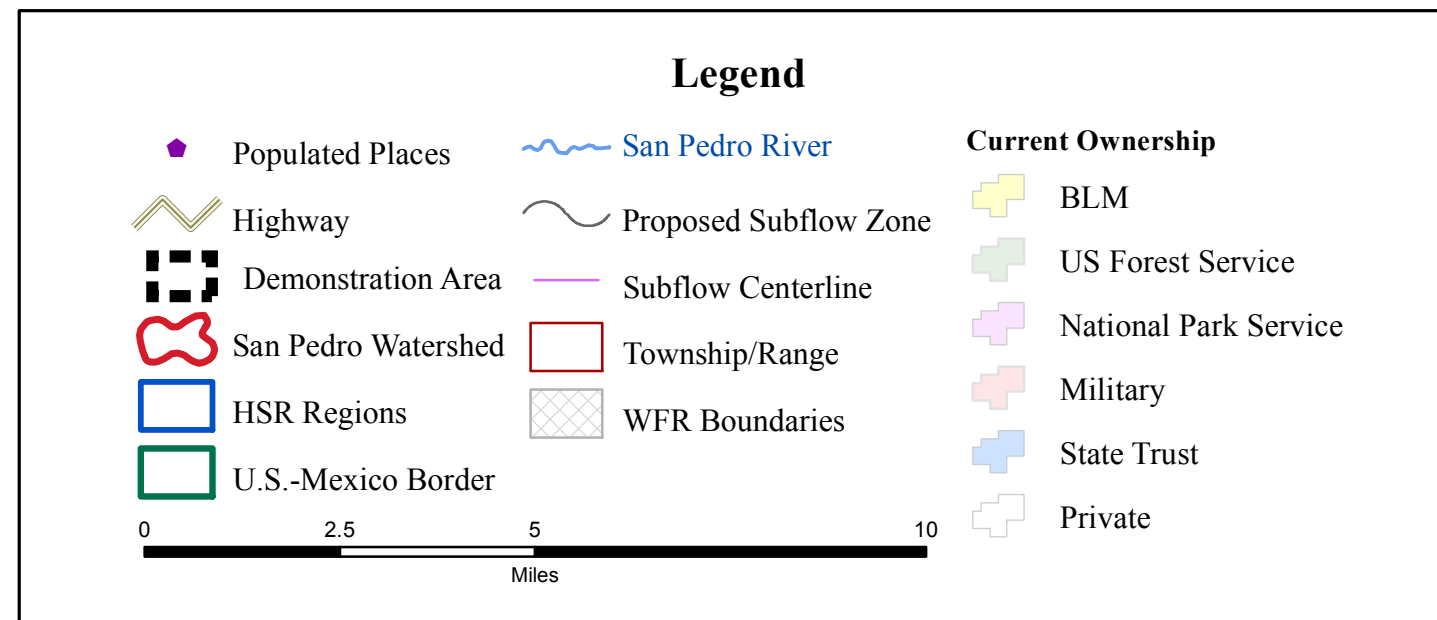
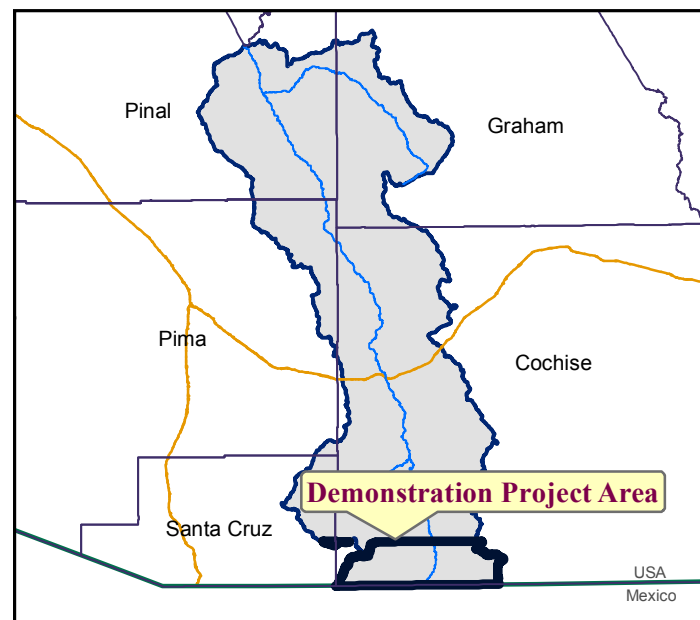
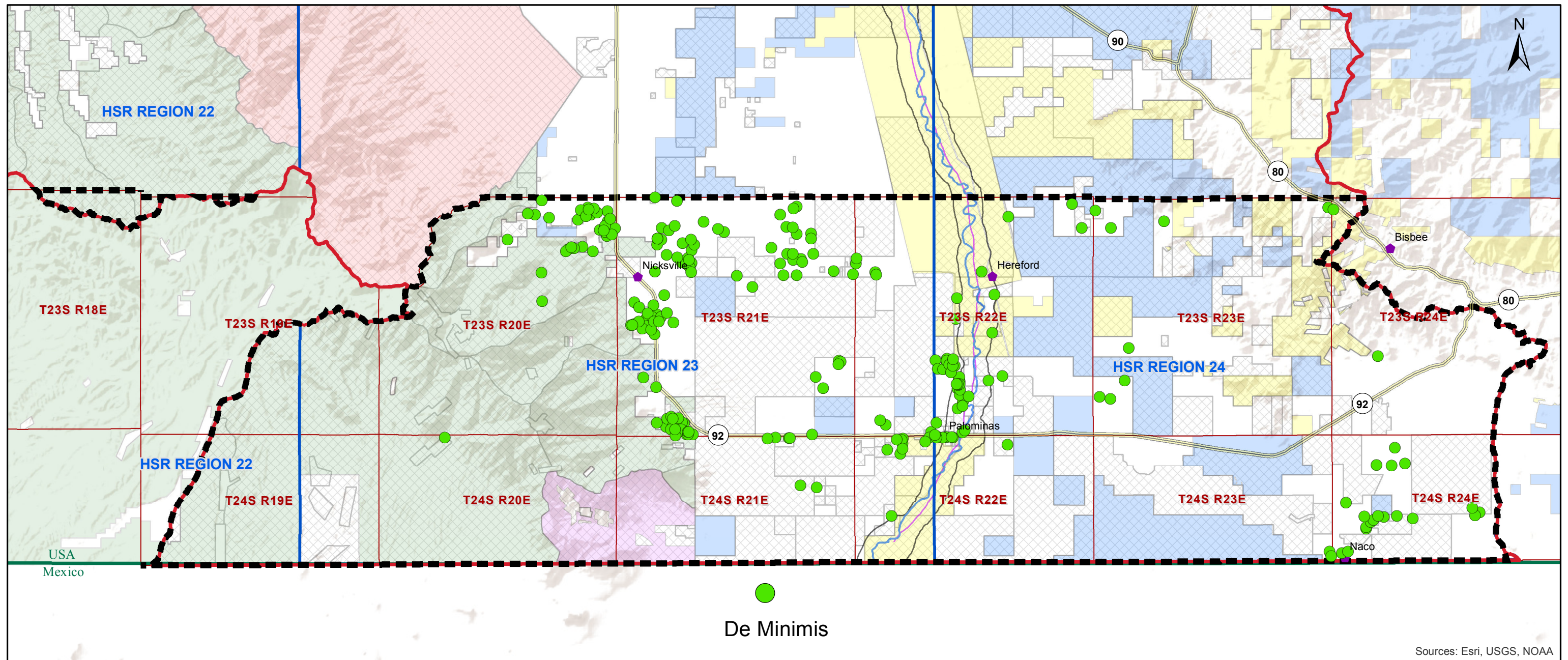
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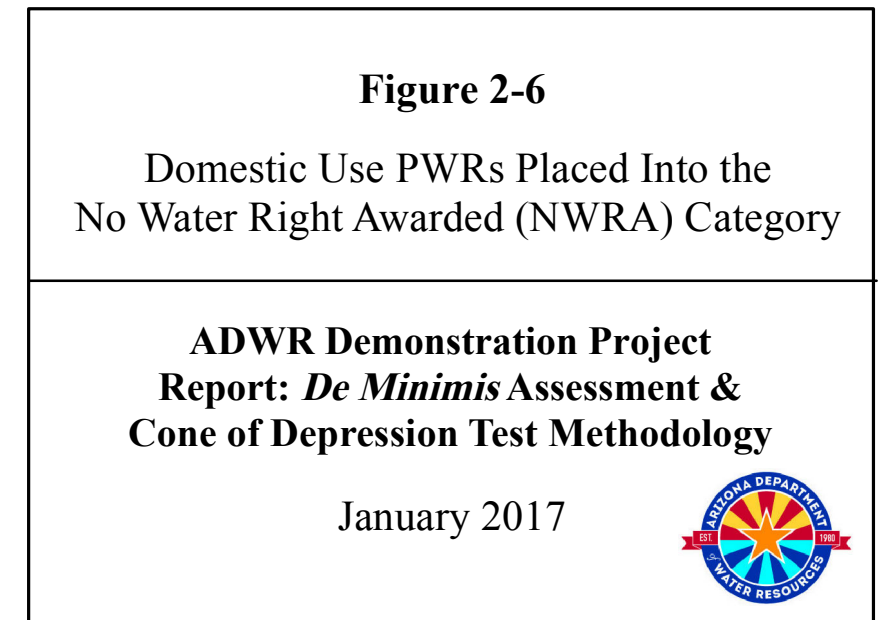
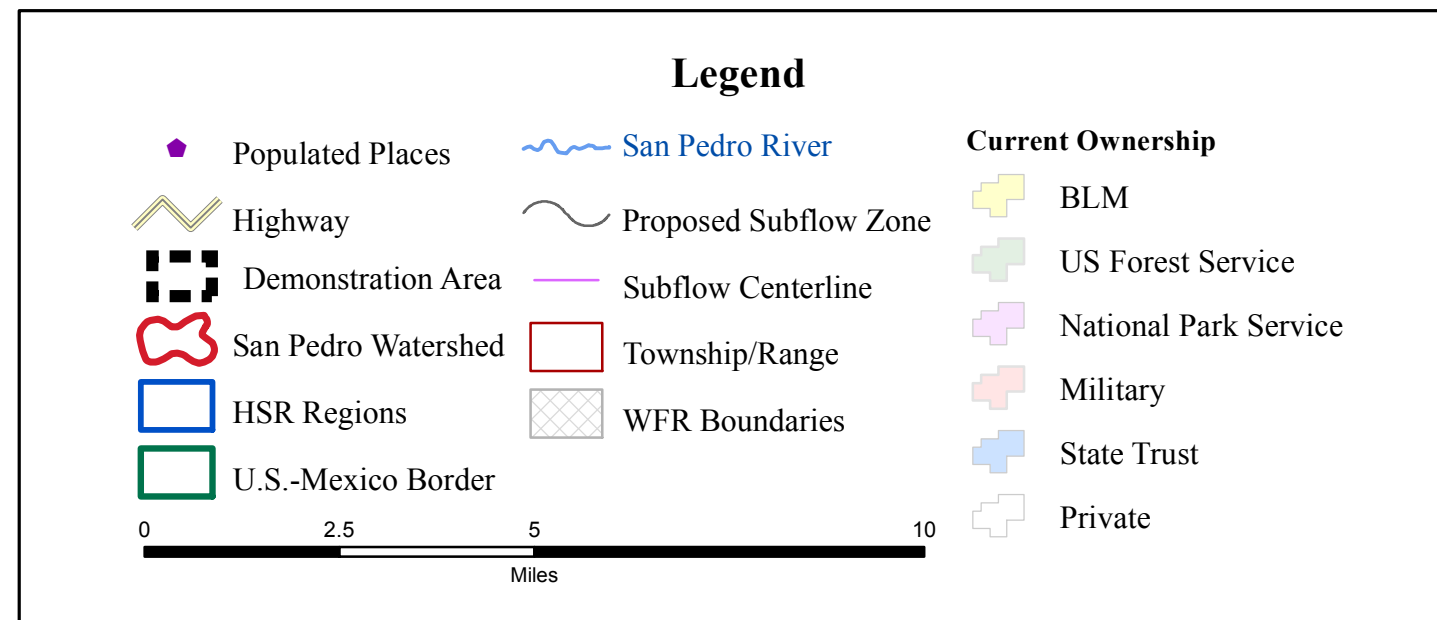
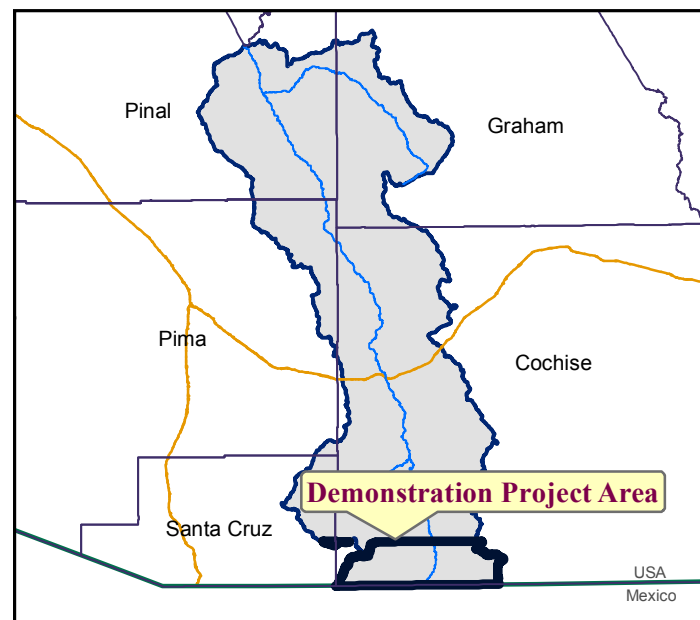
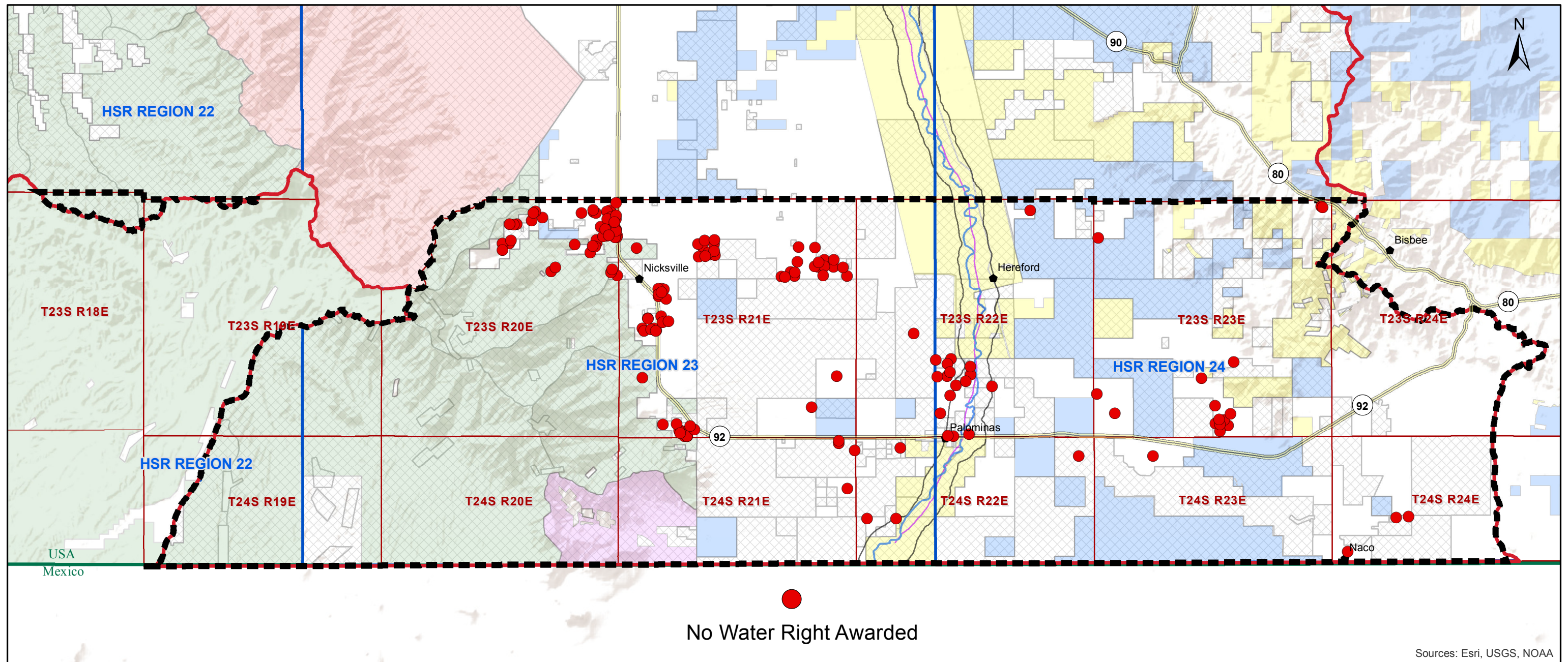




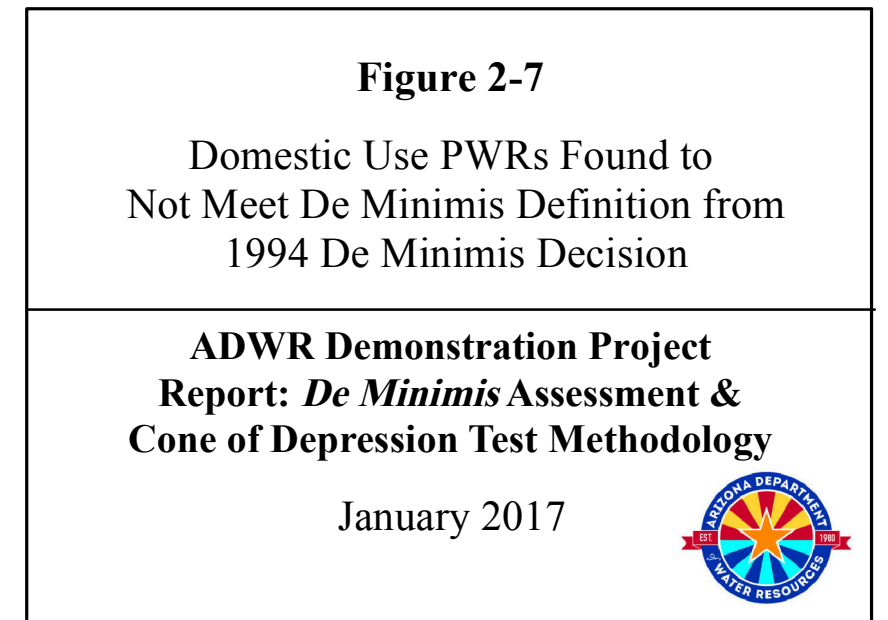
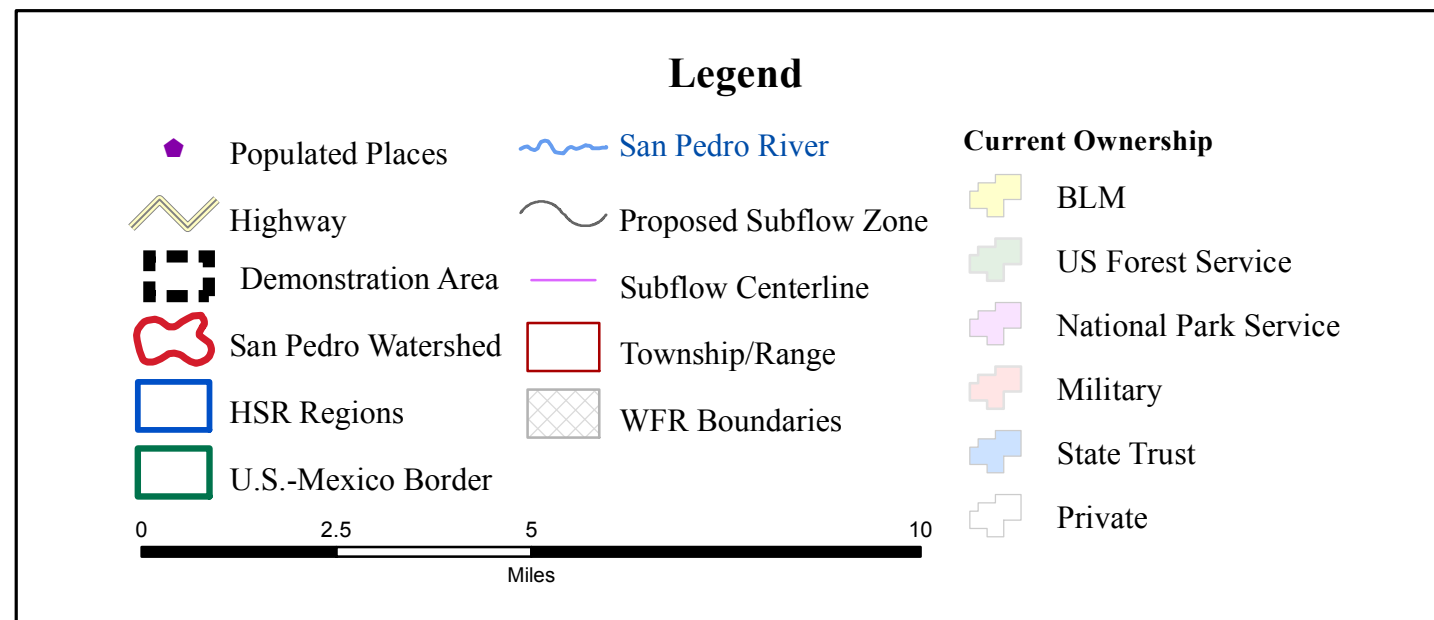
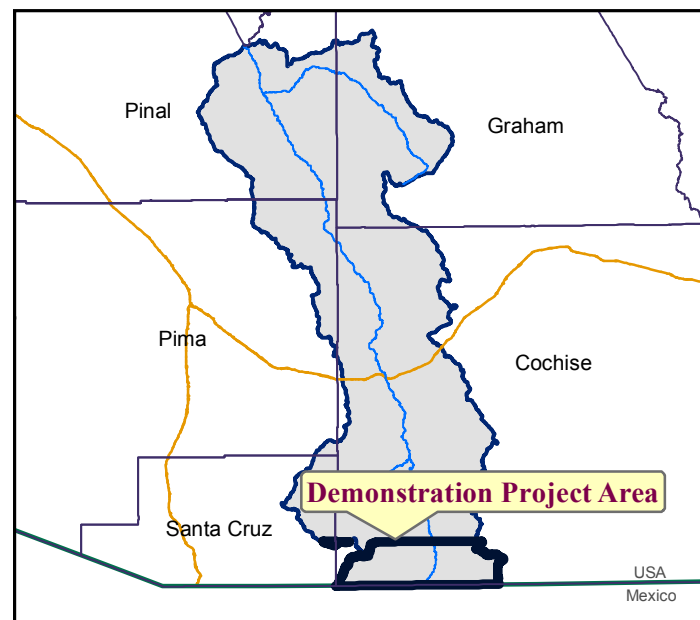
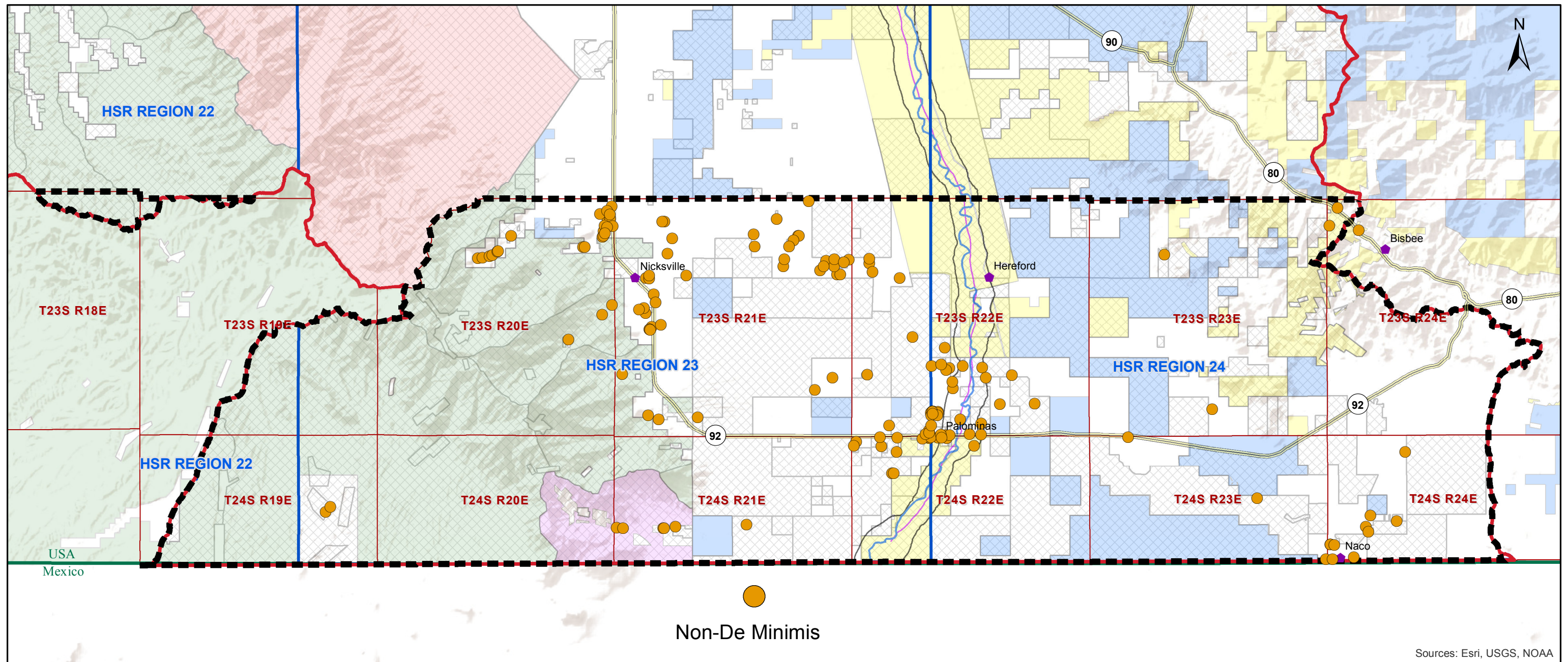




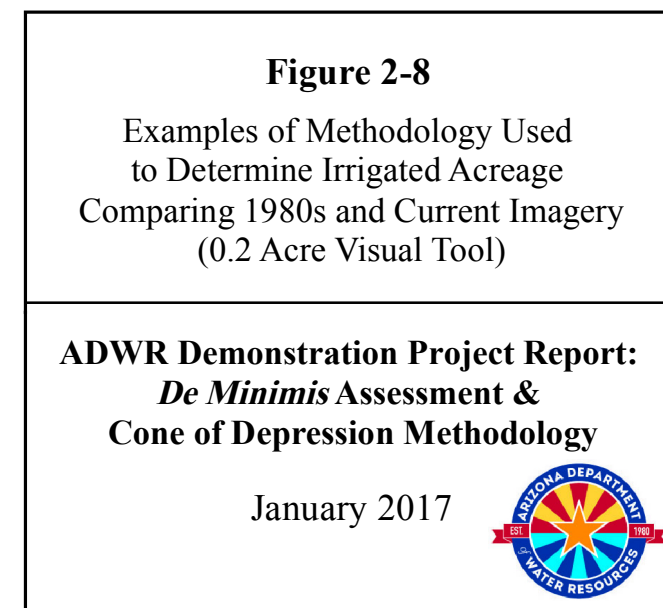
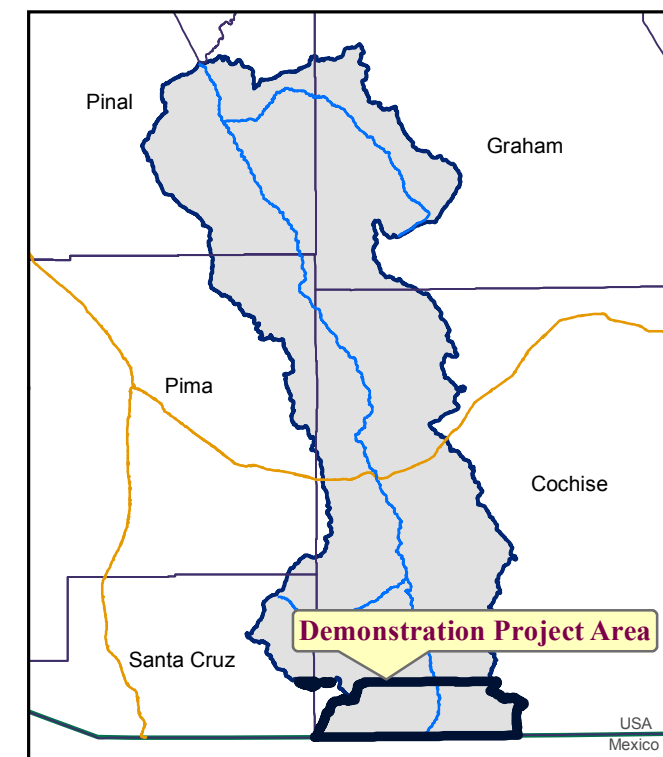
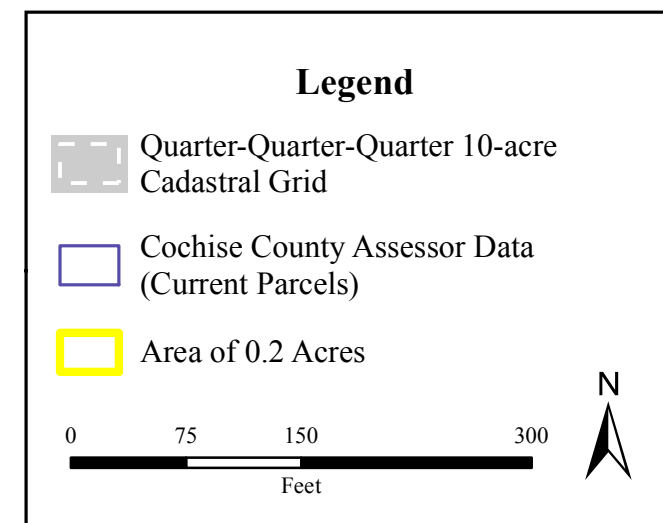
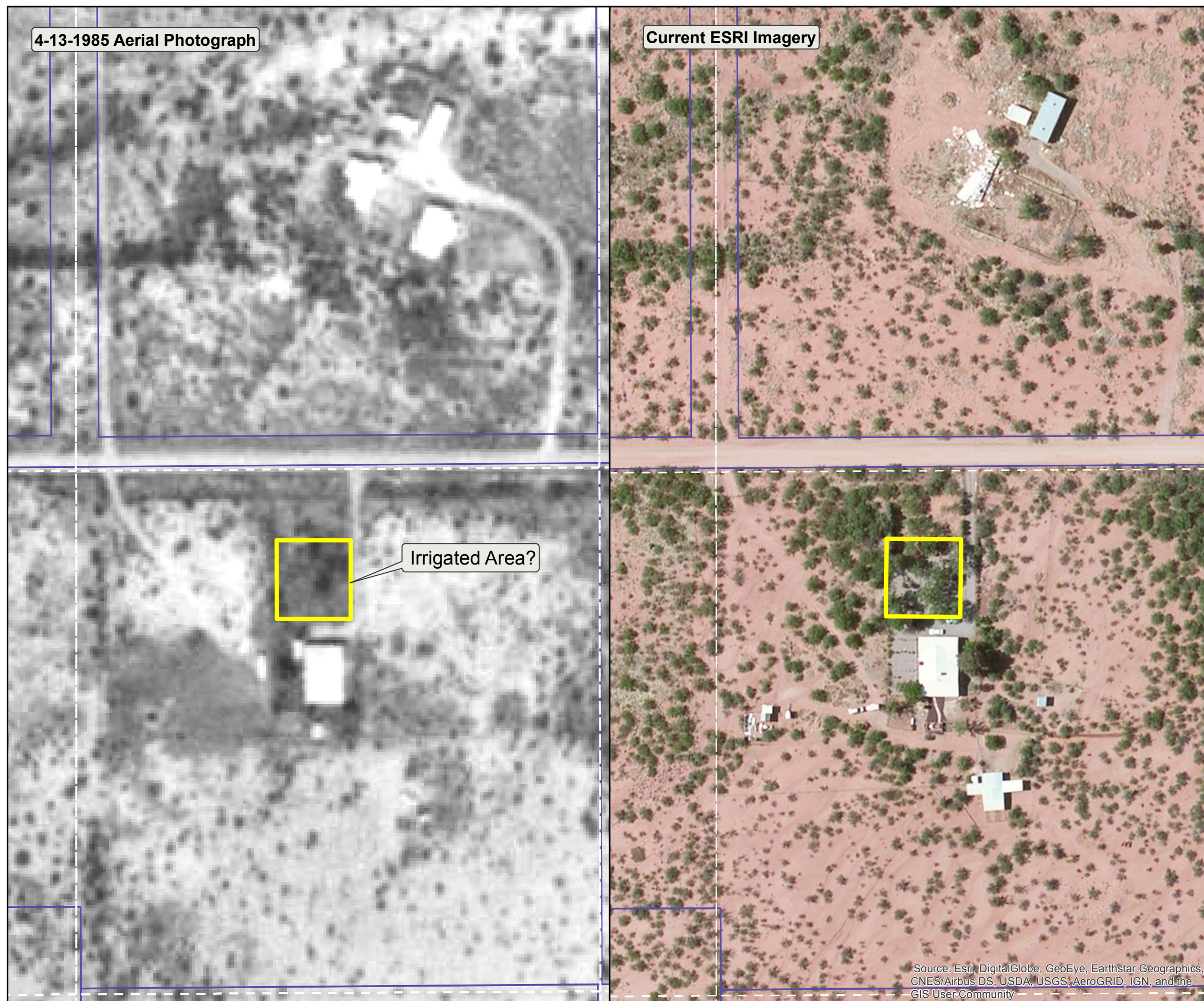




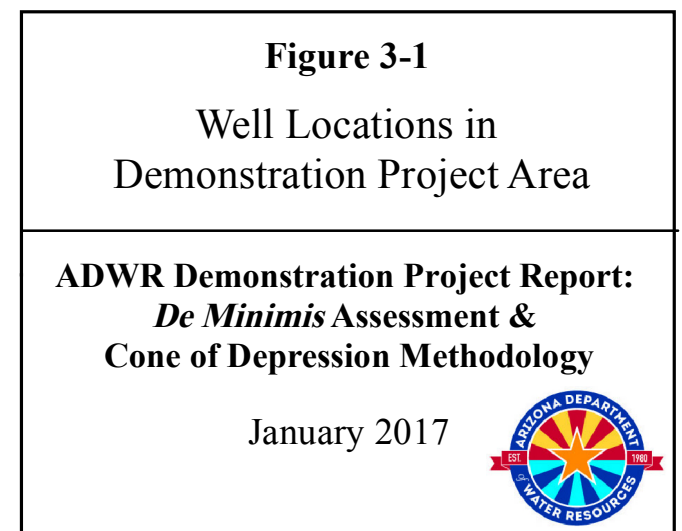
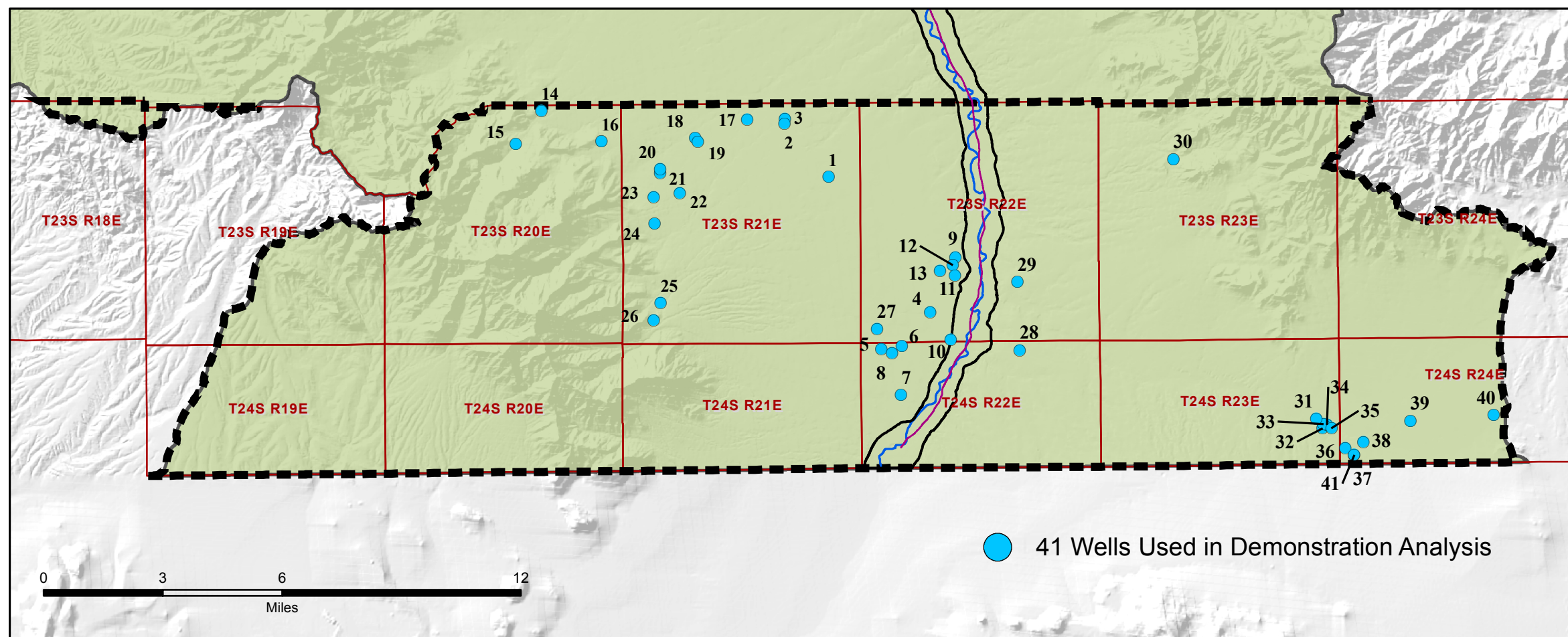
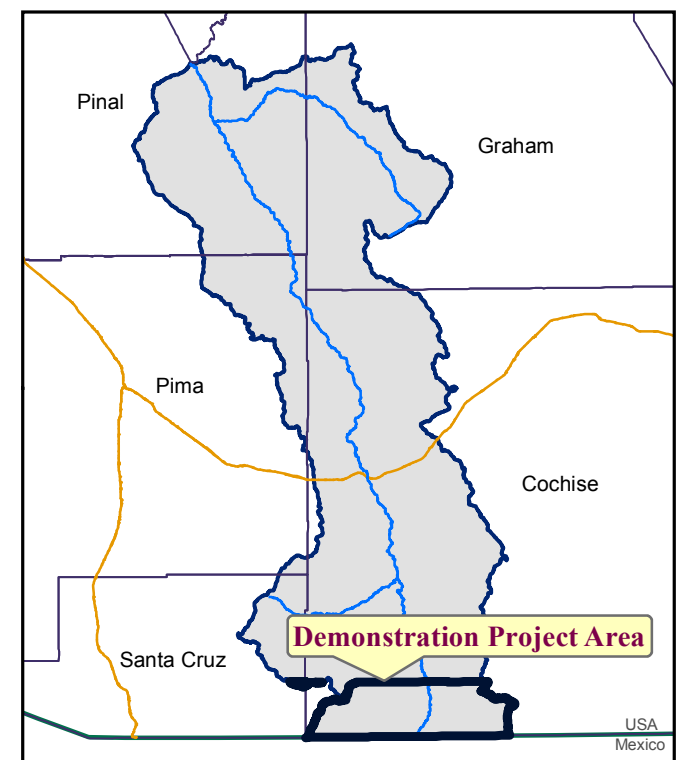
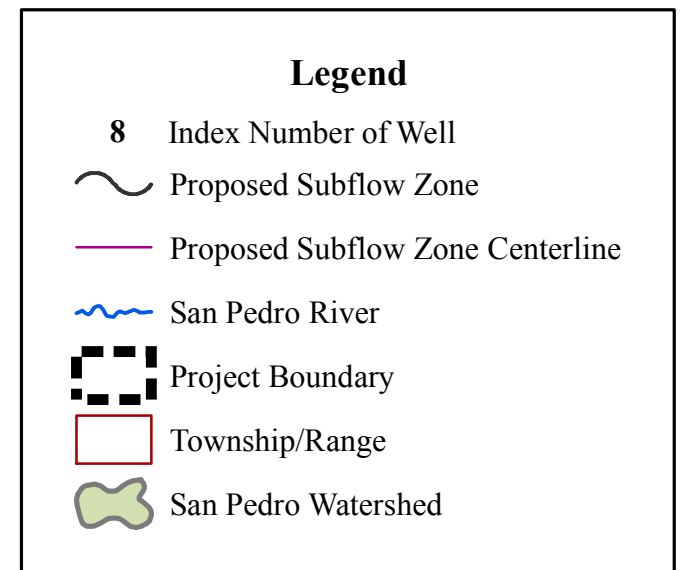
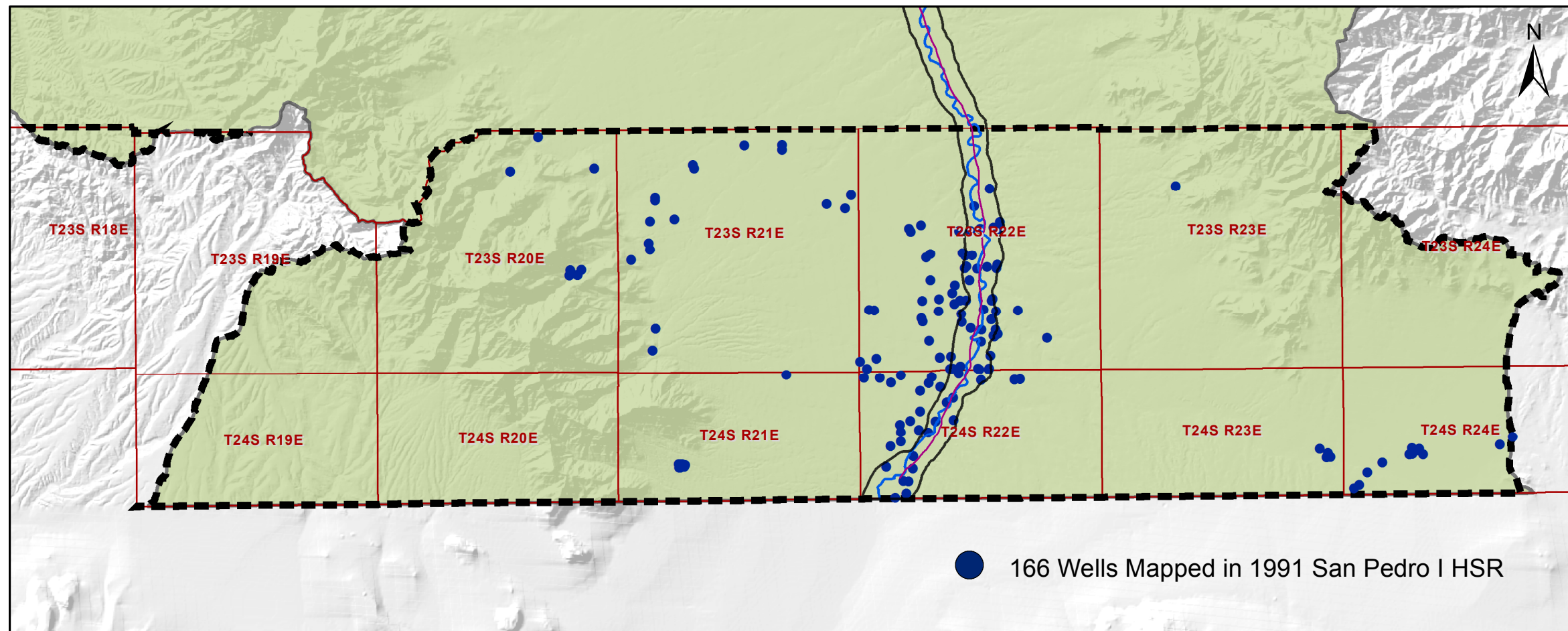




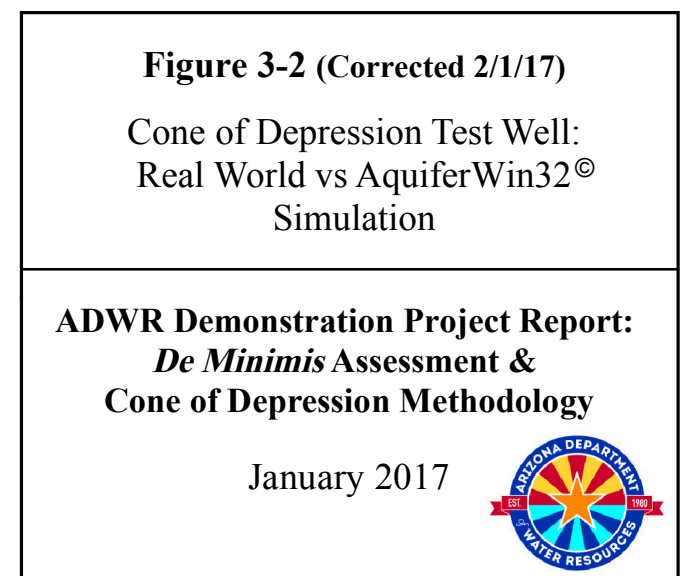
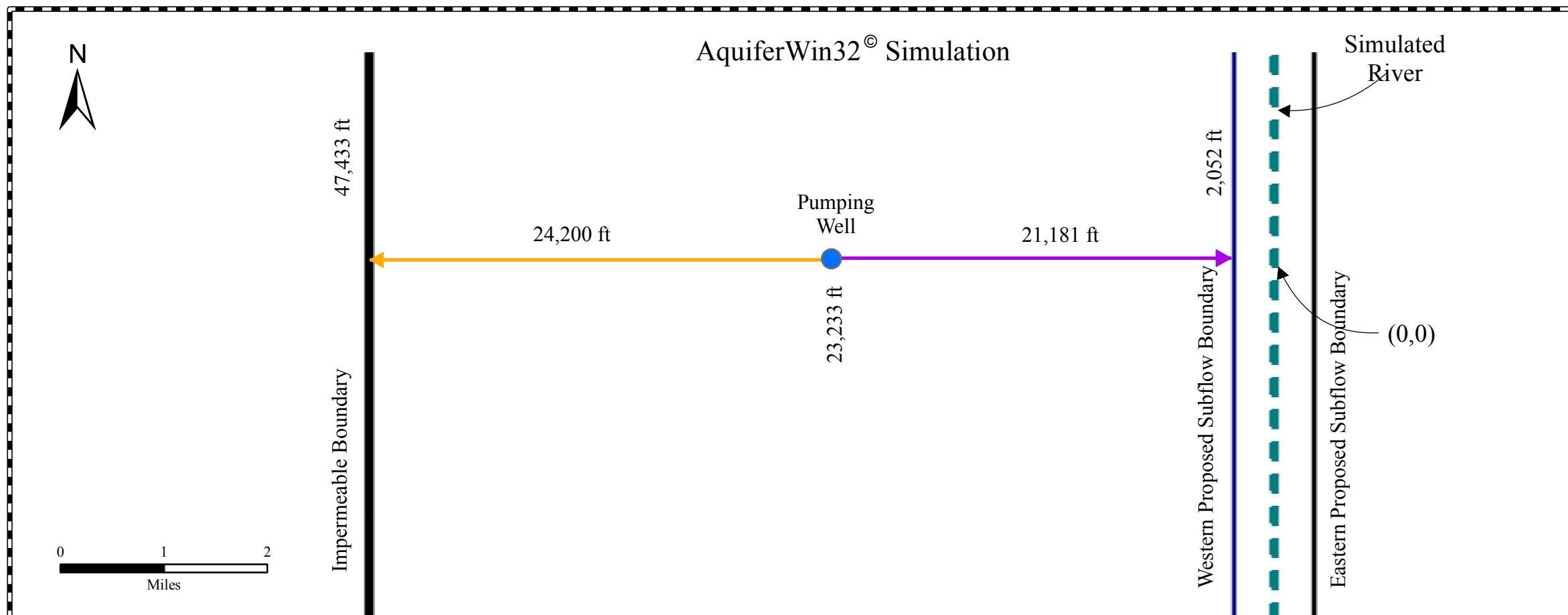
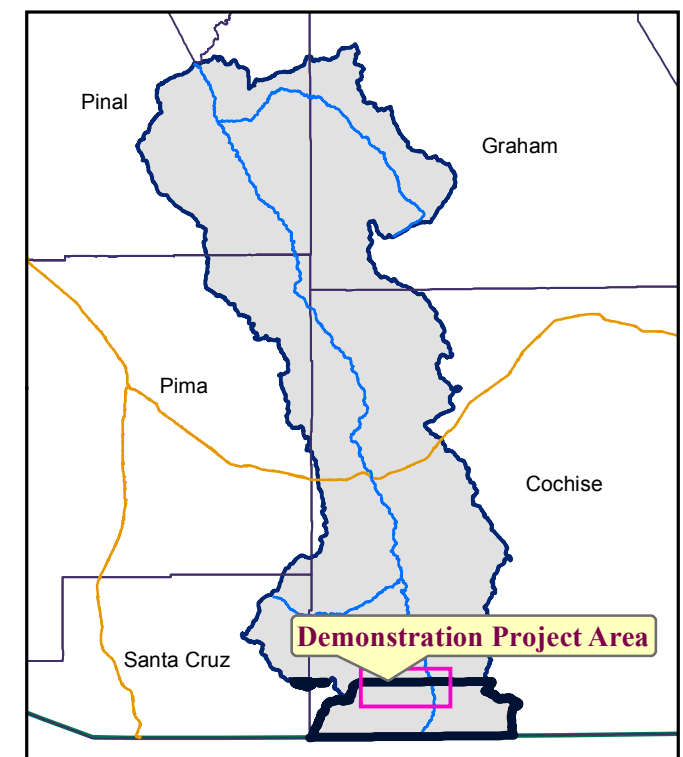
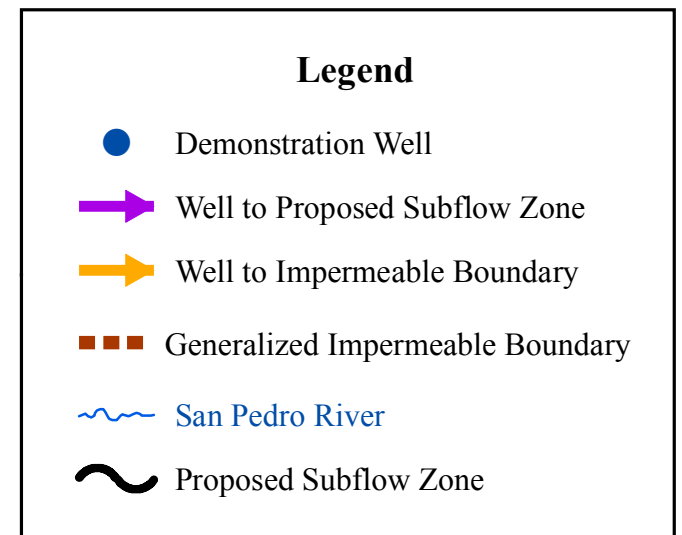
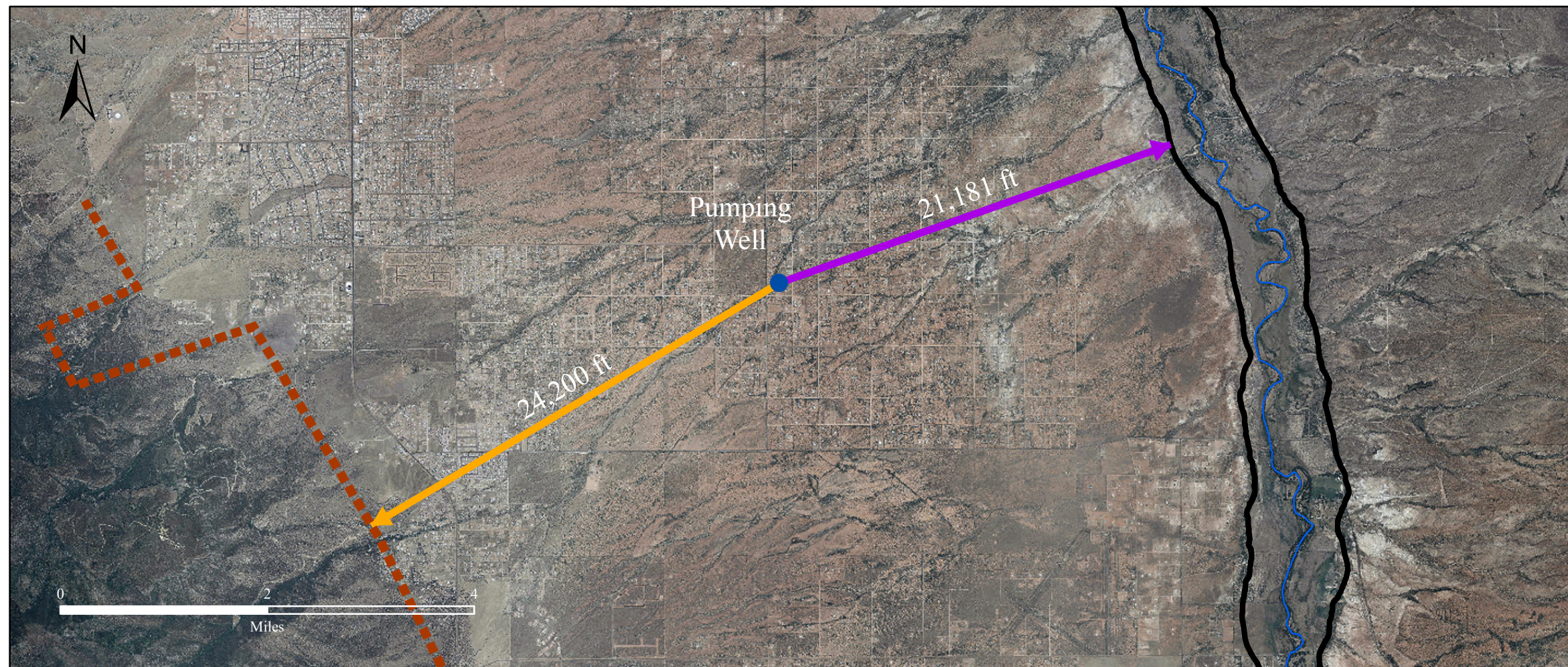




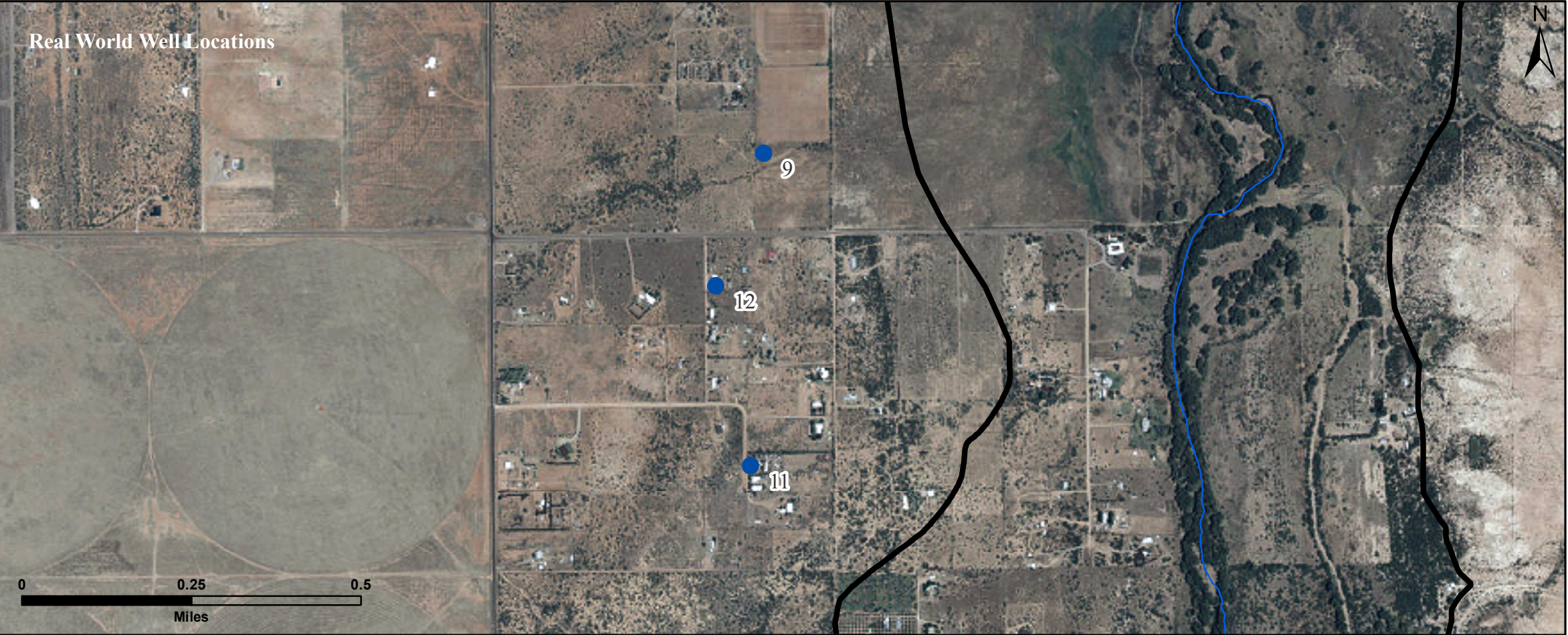




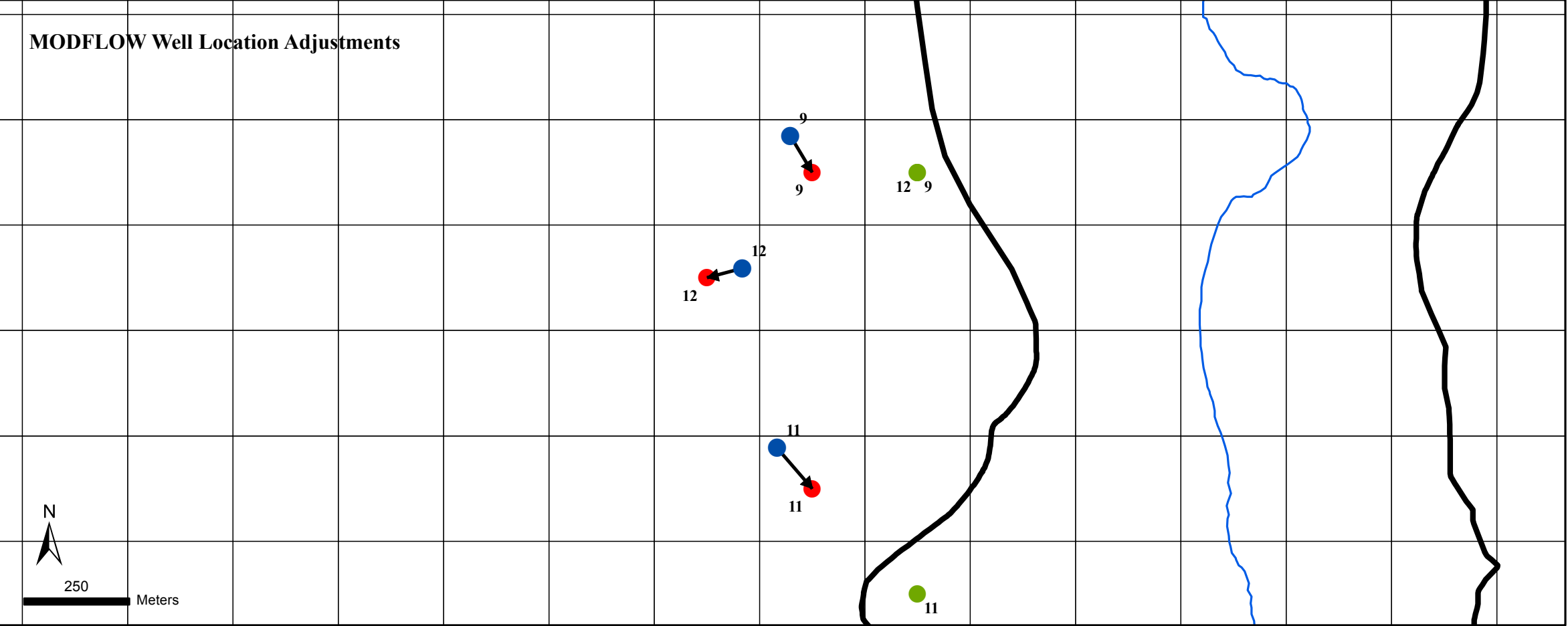
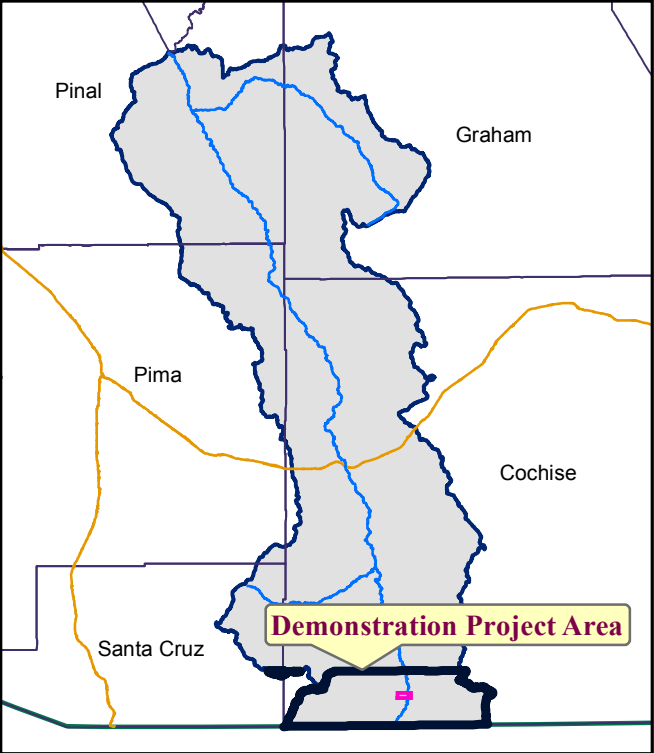








- Legend**
- San Pedro River
  - Proposed Subflow Zone
  - Demonstration Well Actual Location
  - Demonstration Well Simulated Location
  - Location of Simulated Drawdown at Proposed Subflow Zone Boundary
  - Model Grid Cells
  - 8 Index Number of Well



**Figure 3-3**  
Cone of DepressionTest Well: Real  
World Well Location vs  
MODFLOW Well Location

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Cone of Depression Methodology**

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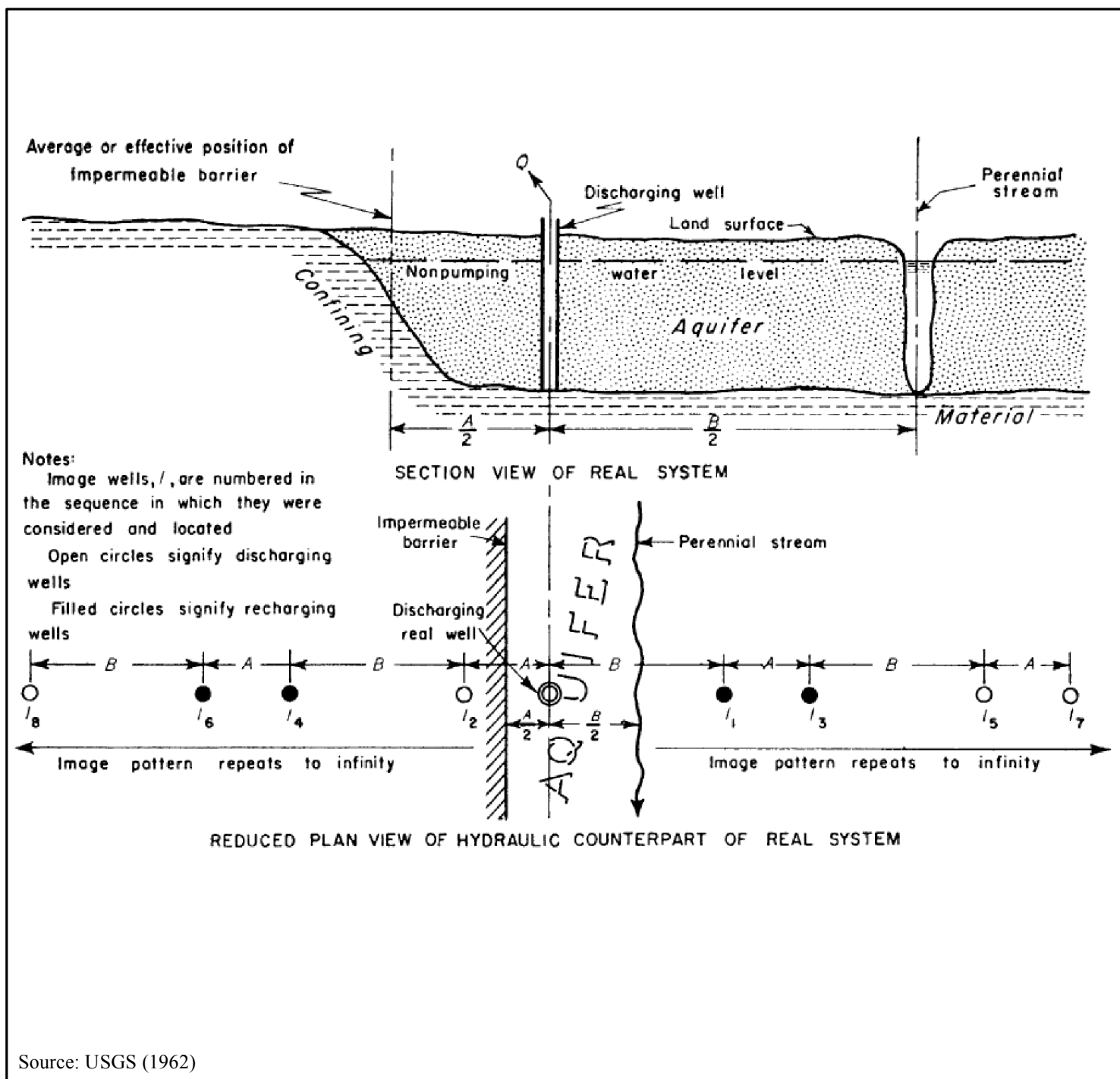


Figure 3-4

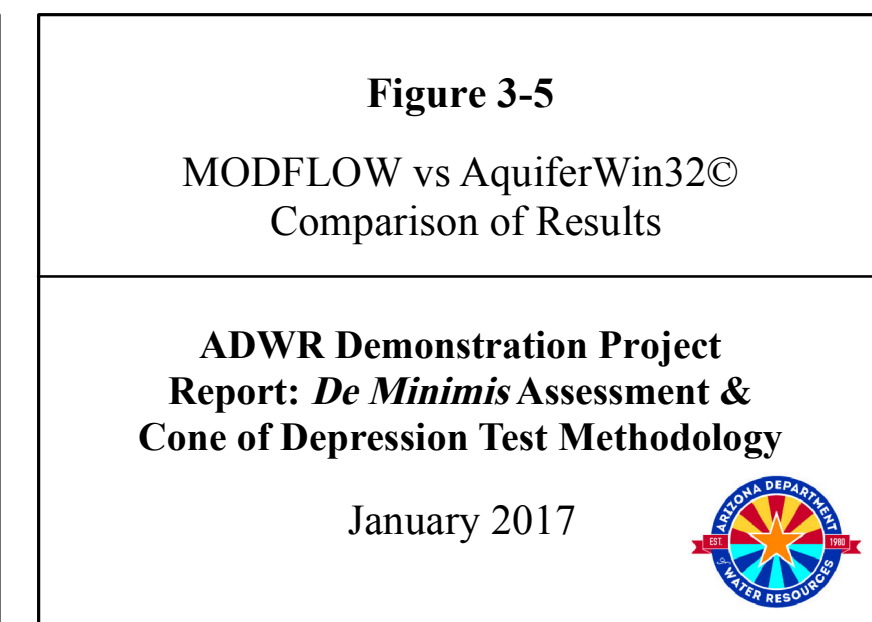
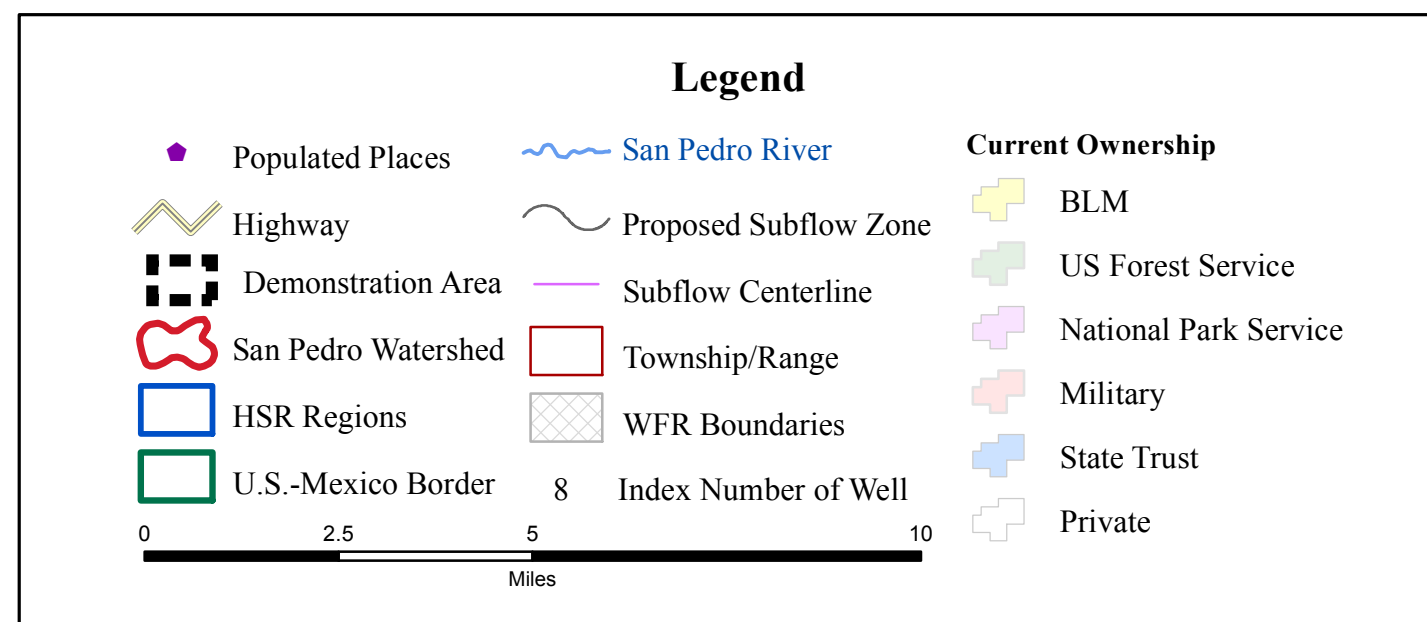
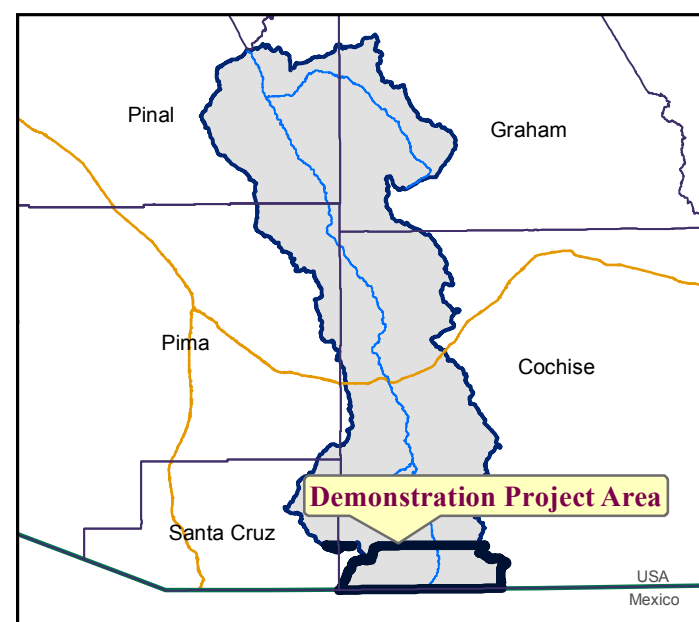
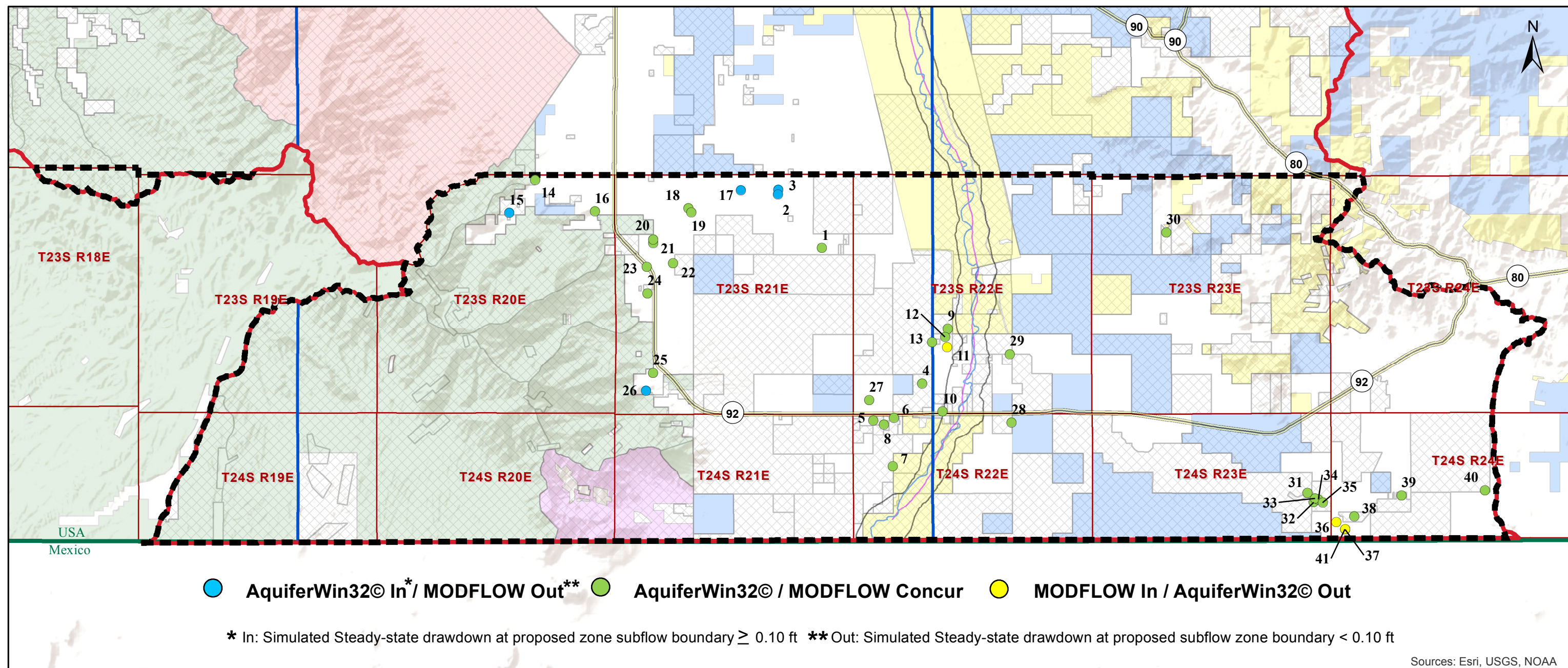
Image Well Analysis Example:  
Impermeable Barrier Parallel  
to a Perennial Stream

ADWR Demonstration Project  
Report: *De Minimis* Review & Cone  
of Depression Test Methodology

January 2017







# APPENDICES

# APPENDIX A

## CHAPTER 8: INVESTIGATION CRITERIA, PROCEDURES, AND REPORTING FORMAT

This chapter describes the criteria, investigation procedures, and reporting format which the Arizona Department of Water Resources (DWR) utilizes for establishing the scope of its water use and water rights investigations, the results of which are shown in Volumes 3 through 9 of this report. DWR recognizes that the criteria are complex and, as a result, can be difficult to understand. The reasons for this complexity are the highly diverse circumstances associated with water uses and water rights in Arizona and the fact that so few of these circumstances have yet to be administratively or judicially examined.

The general criteria utilized in preparing this hydrographic survey report (HSR) follow the guidelines established by the Court in Pre-Trial Order No. 1 dated May 29, 1986, the Third Set of Issues for Decision dated January 29, 1988, the Groundwater/Surface Water Decision dated September 9, 1988, and the Water Rights Entitlement Issue Decision dated March 17, 1989. The scope of DWR's investigations include all non-Indian statements of claimant that claim water uses or rights, all previous filings or rights established under the water code (3Rs, 33s, or 4As), all claims made under the water rights and stockpond registration acts (36s and 38s), and all decreed rights, notices of appropriation (10s), old rights ("Os"), and claimed rights ("Cs"). In addition, DWR investigates all water uses without any applicable statements of claimant or previous water rights or filings, except for stockwells and nonirrigation uses within municipal water service areas. It should be noted that the Court has yet to determine the legal effect of failure to file a statement of claimant.

### 8.1 INFORMATION SOURCE DOCUMENTATION

The preparation of the San Pedro River watershed HSR involved extensive office and field investigations by DWR personnel. To initiate and complete the investigations, DWR compiled materials to establish water use locations and to assist in verifying potential water rights (PWRs). The basic materials that constitute the geographical investigation data base are listed as follows.



## MAPS

DWR utilized the following map sources in its investigations:

- United States Geological Survey (USGS) Topographic Quadrangle Maps (7.5 and 15 minute series)

<u>QUADRANGLE MAP NAME</u>	<u>SCALE</u>	<u>QUADRANGLE MAP NAME</u>	<u>SCALE</u>	<u>QUADRANGLE MAP NAME</u>	<u>SCALE</u>
Agua Caliente Hill	1:24,000	Galleta Flat West	1:24,000	North of Oracle	1:24,000
Apache Peak	1:24,000	Haberstock Hill	1:24,000	Oracle	1:24,000
Basset Peak	1:24,000	Happy Valley	1:24,000	O'Donnell Canyon	1:24,000
Benson	1:62,500	Happy Valley	1:62,500	Pearce	1:62,500
Benson	1:24,000	Harrison Canyon	1:24,000	Peppersauce Wash	1:24,000
Bisbee	1:24,000	Hay Mountain	1:24,000	Piety Hill	1:24,000
Bisbee NE	1:24,000	Hereford	1:24,000	Potter Mountain	1:24,000
Bisbee SE	1:24,000	Hereford SW	1:24,000	Putnam Wash	1:24,000
Black Diamond Peak	1:24,000	Holy Joe Peak	1:24,000	Pyeatt Ranch	1:24,000
Black Mountain	1:24,000	Hookers Hot Springs	1:24,000	Rawhide Mountain	1:24,000
Blue Jay Peak	1:24,000	Huachuca City	1:24,000	Redington	1:24,000
Booger Canyon	1:24,000	Huachuca Peak	1:24,000	Redington	1:62,500
Brandenburg Mountain	1:24,000	Kielburg Canyon	1:24,000	Reiley Peak	1:24,000
Buehman Canyon	1:24,000	Kennedy Peak	1:24,000	Rhodes Peak	1:24,000
Bufford Hill	1:24,000	Klondyke	1:24,000	Rincon Peak	1:24,000
Campini Mesa	1:24,000	Knob Hill	1:24,000	Saddle Mountain	1:24,000
Campo Bonita	1:24,000	Land	1:24,000	St. David	1:24,000
Canelo Pass	1:24,000	Lewis Springs	1:24,000	San Carlos Reservoir	1:62,500
Cherry Spring Peak	1:24,000	Lookout Mountain	1:24,000	San Pedro Ranch	1:24,000
Clark Ranch	1:24,000	Mammoth	1:24,000	Sierra Bonita	1:24,000
Cobre Grande Mountain	1:24,000	Mammoth	1:62,500	Soza Canyon	1:24,000
Cochise Stronghold	1:24,000	McGrew Springs	1:24,000	Soza Mesa	1:24,000
Crozier Peak	1:24,000	Mescal	1:24,000	Spring Water Canyon	1:24,000
Deepwell Ranch	1:24,000	Mica Mountain	1:24,000	Stark	1:24,000
Dragoon	1:24,000	Miller Peak	1:24,000	Steele Hills	1:24,000
Dragoon	1:62,500	Montezuma Pass	1:24,000	The Mesas	1:24,000
Elgin	1:24,000	Mount Bigelow	1:24,000	Tombstone	1:24,000
Elgin	1:62,500	Mt. Hughes	1:24,000	Tombstone SE	1:24,000
Empire Mountains	1:62,500	Mt. Lemon	1:24,000	Tripp Canyon	1:24,000
Eureka Ranch	1:24,000	Mt. Turnbull	1:24,000	Wild Horse Mountain	1:62,500
Fairbank	1:24,000	Muskhog Mountain	1:24,000	Winchester Mountains	1:62,500
Fortified Peak	1:24,000	Mustang Mountains	1:24,000	Winkelman	1:24,000
Fort Huachuca	1:24,000	Naco	1:24,000		
Galleta Flat East	1:24,000	Nicksville	1:24,000		

- United States Bureau of Land Management (BLM) Surface Management Status Topographic Quadrangles (30 x 60 minute)

<u>MAP NAME</u>	<u>SCALE</u>
Mammoth	1:100,000
Douglas	1:100,000
Nogales	1:100,000
Fort Huachuca	1:100,000
Chiricahua Peak	1:100,000

- Arizona highway and county maps prepared by the Arizona Department of Transportation
- United States Forest Service (USFS) Hydrology site location maps
- USFS National Forest Maps

<u>MAP NAME</u>	<u>SCALE</u>
Chiricahua, Peloncillo, and Dragoon Mountains	1:126,720
Safford and Santa Catalina Ranger Districts	1:126,720
Santa Rita, Tumacacori, Patagonia, Huachuca, and Whetstone Mountain Ranges	1:126,720

- Arizona Corporation Commission water company franchise boundary maps
- Arizona State Water Commissioner Gila River determination maps pertaining to the San Pedro River watershed (1920, 1921, and 1923)
- General Land Office plat maps
- Cochise, Graham, Pima, Pinal, and Santa Cruz, Counties' assessor parcel ownership maps
- DWR generated maps

## AERIAL PHOTOGRAPHY

In 1984, 1985, 1986, 1987, and 1990, DWR obtained stereo aerial photographic coverage of the San Pedro River watershed. This aerial photography at a nominal 1:24,000 scale has been the primary source of information used to identify certain types of water uses (e.g., stockponds, domestic uses, initial locations of irrigated areas requiring field investigation, etc.).



DWR has also obtained historical aerial photography for the San Pedro River watershed. The available historical aerial photography coverage did not provide complete coverage for the entire watershed. Historical aerial photography is utilized in much the same way as the current DWR aerial photographic coverage, however, historical aerial photographs are one of the key tools used in establishing apparent dates of first water use. The historical aerial photography utilized in DWR's investigations are shown in Table 8-1.

**TABLE 8-1**  
**HISTORICAL AERIAL PHOTOGRAPHY USED BY DWR**

<u>YEAR</u>	<u>AGENCY</u>	<u>NOMINAL SCALE</u>	<u>PERCENT COVERAGE OF SAN PEDRO RIVER WATERSHED (1)</u>
1984	National High Altitude Photography Program (NHAP)	1:80,000	20 to 25
1983	Arizona Department of Transportation (ADOT)	1:20,000	1 to 5
1983	NHAP	1:80,000	10 to 11
1980	National Aeronautics and Space Administration (NASA)	1:32,000	10 to 15
1980	NHAP	1:8,600	1 to 5
1979	United States Department of Agriculture (USDA)	1:24,000	40 to 45
1979	USDA	1:8,000	20 to 25
1978	Southwest Environmental Associates	1:40,000	1 to 5
1977	USDA	1:24,000	1 to 5
1977	ADOT	1:20,000	1 to 5
1976	USDA	1:8,000	1 to 5
1976	USDA	1:40,000	5 to 10
1976	USDA	1:6,600	1 to 5
1976	United States Geological Survey (USGS)	1:16,000	5 to 10
1973	NASA	1:125,000	1 to 5
1973	NASA	1:62,500	15 to 20
1972	USGS	1:24,000	5 to 10
1972	NASA	1:60,000	5 to 10
1971	NASA	1:24,000	1 to 5
1971	USGS	1:40,000	1 to 5
1971	United States Air Force	1:80,000	1 to 5
1971	NASA	1:116,047	25 to 30
1970	Agricultural Stabilization and Conservation Service (ASCS)	1:20,000	1 to 5
1969	ASCS	1:20,000	1 to 5
1969	NASA	1:80,000	1 to 5
1967	ASCS	1:20,000	1 to 5
1964	ASCS	1:20,000	10 to 15
1968	ASCS	1:20,000	5 to 10
1965	USDA/Soil Conservation Service (SCS)	1:60,000	1 to 5
1965	ASCS	1:20,000	40 to 45
1947	USGS	1:47,000	1 to 5
1945	USGS	1:40,000	5 to 10
1935	SCS	1:24,000	80 to 85
1935	SCS	1:62,500	1 to 5

(1) These values are approximate.

## LAND OWNERSHIP INFORMATION

Land ownership data is obtained from the Cochise, Graham, Pima, Pinal, and Santa Cruz Counties' assessor revenue listings as reported to the Arizona Department of Revenue. Associated parcel or plat maps were obtained directly from the county offices.

The USFS and BLM Surface Management Status maps also supply information on the ownership status of public lands. These agencies, along with the Arizona State Land Department (SLD), have supplied additional information on the status of grazing, agricultural, and commercial leases on public land. DWR has integrated the land ownership information into several computer bases: the Geographic Information System (GIS) and the Adjudication Investigation System (AIS).

## WATER USE INFORMATION

One of the first tasks in DWR's investigations involves collecting and analyzing all pertinent notices of appropriation, old rights, claimed rights, water rights filings, certificates, registrations, or court decrees. DWR has direct access to all physical copies of water rights filings. The filings and registrations are also accessed through several DWR computer data bases: the Surface Water Registration system, the Statement of Claimant Registry, and the Well Registration system. Notices of appropriation are obtained from each county where the notices have been filed. Court decrees are obtained through the Cochise, Graham, Pima, Pinal, or Santa Cruz County Superior Court clerks. Chapter 1 contains a description of each category of water right filing.

Water consumption figures and customer information for franchised water companies was obtained from annual reports submitted by the companies to the Arizona Corporation Commission (ACC). Municipal water systems and domestic water improvement districts/co-ops are not regulated by the ACC. Therefore, water consumption figures and customer base information from these water providers were obtained directly from the town, city, organization, or their water rights filings.

Industrial water use figures for the Apache Nitrogen Company, ASARCO, Inc. Well Fields, and the Magma Copper Company's San Manuel Operation were obtained from these respective operations during the course of DWR's investigations.

Water use investigations for domestic and stockwatering facilities are conducted initially through map and aerial photo interpretation. The larger stockponds, those that appear to be over two surface acres in size, were inspected in the field. If the field investigation determined that the pond could store water (i.e., not a flood control impoundment with an open outlet pipe at the bottom of the dam), it was surveyed for the area (acres) and capacity (acre-feet) at its spillway crest elevation. In the early stages of DWR's investigations for the San Pedro River watershed, prior to entry of the Court's Entitlement Decision, DWR was utilizing a threshold criteria of one acre rather than two acres to measure stockpond area and capacity. Hence, data has been collected for a number of ponds between one and two surface acres and this information is reported in the watershed file reports wherever it has been obtained. Domestic water use or other stockwatering facilities (springs and smaller stockponds) may also be verified during field inspections. Domestic water, stockwatering, and wildlife uses from wells, springs, or free flowing water courses are not quantified.

Irrigation water use information was gathered through an extensive program of field mapping and measurement. Current aerial photography of irrigated areas was enlarged for mapping purposes. All elements of the irrigation systems were mapped including: diversions (groundwater supplying greater than two acres of irrigation; surface water for all acreage), conveyance systems, reservoirs, and irrigated lands. Storage reservoirs larger than two surface acres were surveyed to determine storage capacity using the same survey method applied to measuring stockpond capacities. Surface water diversions for irrigation in the San Pedro River watershed have been measured at most sites since 1988. For more information on the quantification methodology for irrigation see APPENDIX C.

## 8.2 GENERAL CRITERIA

The following sections describe the general criteria utilized by DWR in its investigations. These criteria were established to evaluate the many complex and varied water use situations that DWR encounters in the field. The criteria were also developed to provide the information requested by the Court in its applicable Pre-Trial Orders and Decisions.

### WATER USE CLASSIFICATIONS <sup>13 total</sup>

The different types of water uses reported and investigated are described below with their abbreviations in parentheses. DWR devised the type of use classification for reporting water uses for the adjudication; the classification does not have any legal standing.

Agricultural Irrigation (IR) - water used to produce plants for human or animal consumption or for sale such as nursery stock or pine trees.

Domestic (DM) - water used for household needs and small commercial establishments including small businesses and restaurants. Trailer parks are also included in the domestic use category. Associated irrigation of less than two acres supplied by groundwater or less than 0.1 acres supplied by surface water or less than 0.5 acres supplied by Zone 1 groundwater is included in a domestic use.

Diversion (DV) - a surface water diversion or water export. This classification is given primarily to irrigation water providers or large surface water divertors and to divertors who export water out of a watershed.

Industrial (ID) - water used by a commercial operation or business such as dairies, sand and gravel operations, and fish farming.

Mining (MI) - water used for mineral extraction or the processing of ore. Dust control, drinking water, and other associated uses may be included in this type of water use.

Municipal (MU) - water supplied by a city, town, or private water company through its distribution system for any use. Cooperatives or joint ventures involving four or more users are also included in this category.

Other Irrigation (OT) - water used to produce plants used primarily for landscaping, aesthetic value, erosion control, and similar purposes. Common examples of other irrigation include cemeteries and landscaping around businesses and along highways. Also included in this category is irrigation of land associated with a domestic use by surface water sources less than two acres and greater than or equal to 0.1 acres or greater than or equal to 0.5 acres and less than two acres when supplied by Zone 1 groundwater.

Primary Storage (PS) - an impoundment which stores surface water or groundwater and has a maximum storage capacity greater than fifteen acre-feet. The primary use of the water must be other than stockwatering or wildlife watering.

Recreational Irrigation (RC) - water used to produce plants which are an integral part of a recreation facility. Common examples of recreational irrigation include golf courses, parks, and ball fields.

Small Reservoir (SR) - an impoundment which stores surface water or groundwater and has a maximum storage capacity equal to or less than fifteen acre-feet. The primary use of the water must be other than stockwatering or wildlife watering.

Stockpond (SP) - an impoundment which stores surface water for the primary purpose of watering livestock and/or wildlife.

Stockwatering (SW) - water used primarily for watering livestock. The source may be a spring, cienega, seep, natural lake, natural depression, sink, bog, or intermittent or perennial drainage. Stockwatering does not include stockponds.

Wildlife (WL) - water used primarily for watering wildlife. The source may be a spring, cienega, seep, natural lake, natural depression, sink, bog, or intermittent or perennial drainage.

## POTENTIAL WATER RIGHT

A PWR is defined to be a water use which eventually may need to be recognized as a separate and distinct right. They are identified on the basis of DWR's technical evaluation of actual uses and records of rights and claims.

They represent the end product of the investigation process. Categorizing water uses as PWRs is not, however, a presumption or recommendation of a right by DWR.

More specifically, a PWR is a water use with an independent purpose. It is supplied in its entirety by the same source(s) of water and has the same apparent date of first use for the entire period of use. For example, some water uses and claims have been classified as incidental to a more primary use, i.e., not having an independent purpose and, therefore, are not reported as PWRs. Other water uses, such as an irrigation operation, may have several PWRs reflecting different sources of water or dates of first use for the various irrigated land parcels. Each PWR is assigned a unique number that describes the location of the PWR within the watershed, the type of use, and specific lands or facilities. The data elements encompassed by the PWR number are described in detail in Section 8.5 of this chapter.

All statements of claimant, previous water rights filings including notices of appropriation, old rights, claimed rights, or decreed rights that have been associated with a particular PWR by DWR's investigation are placed in that PWR's watershed file report. These filings and rights provide data such as the location of a water use, the location of the source of water for a water use (i.e., point of diversion), a claimed or established date of first beneficial use, the volume of water used, etc. This data may be used by the Court to establish a water right and to assign an entitlement and priority date to that right. Therefore, it is important that all of these filings and decrees are shown in the HSR and matched to PWRs when applicable.

Water rights are presumed to be appurtenant to the land on which the use occurs, therefore the ownership history of that land is not assumed to be critical to the establishment of a water right. DWR has assigned filings to actual water uses on the basis of the location and type of use claimed rather than on the basis of the claimant name shown on these filings. All land areas potentially covered by a claim will be included in the HSR. Criteria for matching claims to inventoried water uses and diversions follow a similar philosophy. Data included in a claim are broadly interpreted when matching claims to PWRs.

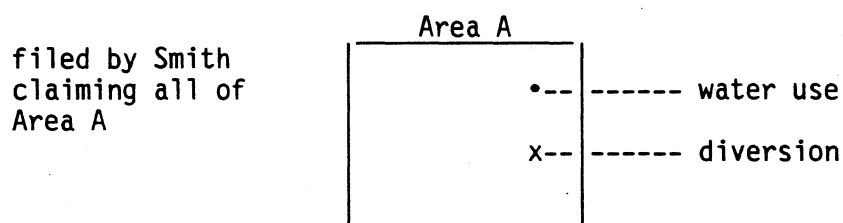
The following outline describes specific criteria involving statement of claimant filings and previous filings/decrees.

A. Assignment to an Adjudication Watershed File Report

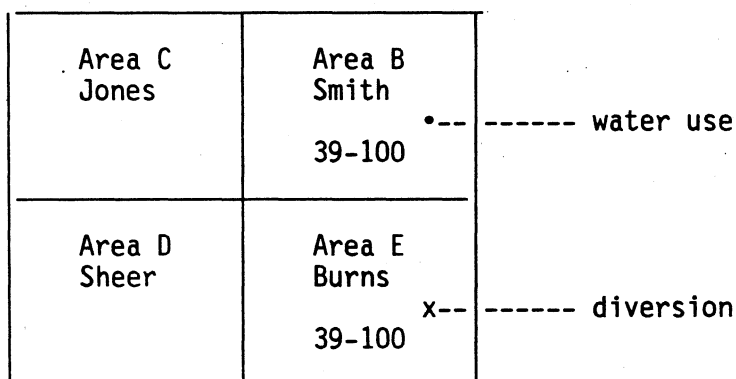
1. All previous filings/decrees and/or statements of claimant will be in a watershed file.
2. A previous filing/decreree or statement of claimant listing water uses or diversions on privately owned land with multiple owners or on public land with multiple lessees/allottees is assigned only to those areas of land which contain the uses or the diversions (see Example 8-1).

**Example 8-1:**

Statement of Claimant Number 39-100



Area A (subdivided since time of original filing)



Filing number 39-100 is assigned to the investigation files created for Area B (Smith) and Area E (Burns). Areas C and D have no investigation file created for them because no water use was found.

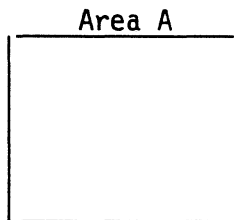
3. Designation is independent from who filed the claim (see Example 8-1); the PWR is presumed appurtenant to the land on which it is located.



4. If land ownership has been split since a claim was filed and no PWRs exist, all parcels of land will be covered (see Example 8-2).

**Example 8-2:**

39-100  
filed by Smith  
on Area A



no water  
uses or  
diversions  
found

Area C Jones  39-100	Area B Abrams  39-100
Area D Sheer  39-100	Area E Burns  39-100

no water uses  
or diversions  
found

Four watershed files are created each containing 39-100 because it is not apparent what land areas are covered by 39-100. Therefore, all possible areas are accounted for.

5. Claims filed on a particular watershed which are investigated and found to list water uses or diversions located outside the watershed will be assigned to the correct watershed and reported in that HSR.

**B. Creation of PWRs on the Basis of Filings**

Two types of PWRs: stock or wildlife watering from a spring and instream stockwatering may be created based solely upon the existence of filings rather than upon the identification of actual water uses from aerial photography or on site inspection. Either type of filings (statements of claimant and previous filings) can exist in order to create a PWR. Table 8-2 illustrates the criteria used to establish these PWRs.

TABLE 8-2

## CRITERIA USED TO ESTABLISH STOCK OR WILDLIFE WATERING PWRs

<u>STATEMENT OF CLAIMANT</u>	<u>PREVIOUS FILING/DECREE</u>	<u>CLAIMED USE</u>	<u>PWR</u>
yes	yes	stock spring (may include wildlife)	SW
yes	yes	wildlife only spring	WL
no	yes	stock or wildlife	none
yes	no	stock or wildlife	none
no	no	stock or wildlife	none
yes	yes	instream stockwater	SW (1)
yes	no	instream stockwater	SW (1)
no	yes	instream stockwater	SW (1)

- (1) In some cases, a filing may claim a stockpond and an instream stockwatering use which occurred prior to the construction of the stockpond. In these cases, DWR will create a stockpond (SP) PWR, and explain that an instream stockwatering use was claimed prior to the stockpond's construction.

## C. Claimed Uses with no PWR Created

1. Stockwatering from a well will not be assigned a PWR when the well is used solely for stockwatering and/or wildlife purposes.
2. Rainfall retention, flood control, erosion control, or any collection of sheetflow will not be assigned a PWR. These uses are reported as "nonappropriable" based on the criteria describing appropriable water in A.R.S. § 45-141.
3. Any claimed use that is secondary to a primary verified use is not assigned a PWR; the claim status is reported as "incidental." For example, a claim is made for irrigation and stockwatering from a well. The water from the well is applied to a field of pasture in which the irrigation runoff is collected in tailwater reservoir. The water collected in the tailwater reservoir is used to water the stock which grazes on the pasture grasses. The primary use of the well water is for irrigation use; the incidental water use is for stockwatering (also see Section 8.3, Water Use Criteria, Incidental Water Uses).
4. Any claimed use that cannot be verified using DWR's criteria.

#### **D. Matching Filings to PWRs**

Previous filings/decrees and statements of claimant are matched to water uses based on the following criteria:

1. A point of diversion listed in a filing/decreed or claim is found to supply water to a PWR.
2. The location of a water use listed on a filing/decreed or claim or shown on a map attached to the filing/decreed or claim matches the location of a PWR determined during the investigation process.
3. For stockpounds the size and shape indicated in a filing/decreed or claim may be used to match the filing/decreed or claim to a verified stockpond location, if the legal description agrees at least to the section number.
4. For springs which are not field investigated, locations may be matched by USGS, USFS, and BLM maps.
5. For domestic uses, filings may be matched by name only unless the filing/decreed or claim identifies a parcel number or an accurate map is provided.
6. Facility name of a claimed water source.

#### **APPARENT DATE OF FIRST USE**

The apparent date of first use represents DWR's technical evaluation of the date of first water use based upon the information evaluated by DWR. Apparent dates of first use have not been reported for all types of use. For those that are reported, much more effort and detail is applied for certain types of use than for others. The methods and criteria used to assign apparent dates of first use are described below and in Table 8-3.

#### **Previous Filings/Rights/Decrees and Statements of Claimant**

The apparent dates of first use are generally taken from the water rights filings unless refuted by historical aerial photography. These filings are: notices of appropriation, old rights, claimed rights, filings made under the State Water Code, claims made under one of the water rights registration acts,

**TABLE 8-3**  
**CRITERIA FOR ESTABLISHING APPARENT DATES OF FIRST USE**

EXAMPLE	WATER USE TYPE	WATER SOURCE	APPLICABLE STATEMENT OF CLAIMANT	APPLICABLE PREVIOUS FILING/DECREE	APPARENT DATE OF FIRST USE ESTABLISHED	BASIS FOR ESTABLISHMENT OF APPARENT FIRST USE DATE
1	Irrigation (IR, RC, OT)	Surface water and/or groundwater	Yes	Yes	Yes	a) May be local historical analysis. b) May be earliest previous filing/decree not refutable by historical aerial photo. c) May be first historical aerial photo date if other than previous filing/decree date <u>or</u> if previous filing/decree date is refuted and photo date is the next evidence of use. d) May be certificated water right.
2	Irrigation	Groundwater	Yes	Yes	Yes	Same as example #1 except "b" may be based on "39" date if that is earlier than previous filing/decree when use supplied solely by wells and acreage is less than or equal to ten acres.
3	Irrigation	Surface water and/or groundwater	No	Yes	Yes	Same as example #1.
4	Irrigation	Groundwater	No	Yes	Yes	Same as example #1.
5	Irrigation	Groundwater and/or surface water	No	No	Yes	See a and c in example #1.
6	Irrigation	Groundwater	No	No	Yes	See c in example #1.
7	Irrigation	Any	Yes or No	Yes or No	Yes	Same as examples 1-6, but if acreage is less than or equal to ten acres, date of first use is based on information obtained from claimant interview or from the statement of claimant if there are no previous filings or no interview. Must be reasonable.

TABLE 8-3 (cont'd)

EXAMPLE	WATER USE TYPE	WATER SOURCE	APPLICABLE STATEMENT OF CLAIMANT	APPLICABLE PREVIOUS FILING/DECREE	APPARENT DATE OF FIRST USE ESTABLISHED	BASIS FOR ESTABLISHMENT OF APPARENT FIRST USE DATE
8	SP, PS, SR	Surface water and/or groundwater	Yes or No	Yes	Yes	a) Use must exist on current aerial photo. b) Earliest previous filing/decree. c) Earliest historical aerial photo.
9	SP, PS, SR	Surface water and/or groundwater	Yes or No	No	Yes	a) Use must exist on current aerial photo. b) Earliest historical aerial photo.
10	SW, WL (Both from spring)	Surface water	Yes	Yes	Yes	a) Earliest previous filing/decree.
11	SW, WL	Groundwater	Yes or No	Yes or No	No	
12	SW, WL (Instream use)	Surface water	Yes	Yes	Yes	a) Earliest previous filing/decree. b) Must be filed by owner/lessee/allottee or by documented successor- or predecessor-in- interest. c) Current aerial photo must show drainage at the claimed location.
13	SW, WL (Instream use)	Surface water	No	Yes	No	
14	SW, WL (Instream use)	Surface water	Yes	No	No	
15	Municipal	Any	Yes or No	Yes or No	Yes	a) May be based upon start of service as documented by previous filing/decree; 39 filing, Arizona Corporation Commission, historical analysis, or claimant information.

TABLE 8-3 (cont'd)

EXAMPLE	WATER USE TYPE	WATER SOURCE	APPLICABLE	APPLICABLE	APPARENT DATE	BASIS FOR ESTABLISHMENT OF APPARENT FIRST USE DATE
			STATEMENT OF CLAIMANT	PREVIOUS FILING/DECREE	OF FIRST USE ESTABLISHED	
16	Industrial	Any	Yes or No	Yes or No	Yes	a) May be based on earliest historical photo, earliest previous filing/decree, earliest 39, historical analysis, or claimant interview. All documentation is evaluated.
17	Mining	Any	Yes or No	Yes or No	Yes	a) Same as in example #16. b) Large mines require field check and claimant interview to establish the apparent date of first use.
18	Domestic	Any	Yes or No	Yes or No	No	

upon decreed dates, or upon dates claimed in statements of claimant. The statement of claimant information is generally not used for any surface water uses except for irrigation of less than ten acres.

### **Historical Analysis**

A historical analysis is performed for surface water irrigation users sharing a common delivery system (irrigation district or canal company) or privately owned ditches in local areas where they are numerous. The purpose of the analysis is to determine the general dates of initial settlement in the area, the initial installment of the diversion and conveyance facilities, and subsequent additions or deletions of lands served by the canal systems. For these cases, dates of first use may be assigned on the basis of historical information rather than the dates claimed even though the historical analysis dates may be earlier than claimed dates. A historical analysis may also be performed for municipal water providers and industrial and mining uses to establish the start-up of the water uses and to verify the claimed dates of first use.

### **Historical Aerial Photography**

Another method for determining apparent dates of first use in the HSR is the use of historical aerial photography to verify past water use activity. When there are no previous filings, decrees, or statements of claimant that pertain to a particular water use, the reported apparent date of first use is the date of the earliest historical aerial photograph on which the activity appears. If there are previous filings/decrees that pertain to a PWR, then the apparent date of first use is taken from the applicable right or filing so long as historical aerial photographic evidence cannot refute that continual use has occurred from that date to the present. If aerial photographs taken subsequent to the date in the right or filing show no evidence of the use, then the apparent date of first use is based upon the earliest historical aerial photograph on which the use appears. Examples of these circumstances are shown in Table 8-4.



TABLE 8-4

**ESTABLISHMENT OF APPARENT FIRST USE DATE BASED UPON  
HISTORICAL AERIAL PHOTOGRAPHY (PRIMARYLY FOR IRRIGATION USES)**

	<u>DATE CLAIMED</u>	<u>AVAILABLE HISTORIC PHOTO DATE</u>	<u>USE VERIFIED DATE</u>	<u>APPARENT FIRST USE DATE ASSIGNED</u>
Example 1	1919	1935 1985	yes yes	1919
Example 2	1919	1935 1955 1985	no yes yes	1955
Example 3	1940	1935 1945 1985	no yes yes	1940
Example 4	1950	1935 1955 1985	no no yes	1985
Example 5	1940	1935 1945 1955 1985	yes no (1) no (1) yes	1985

(1) Aerial photography must clearly show that no irrigation had been taking place.

For some types of uses, historical aerial photography has not been utilized by DWR to determine apparent dates of first use. These uses are primarily stockwatering type uses and the first use dates are based solely upon previous filings/decrees.

### Historical Maps

Maps prepared by the State Water Commissioner in support of the Gila River determination (Figure 8-1), the United States General Land Office plat maps (Figure 8-2), or other types of historical maps obtained by DWR may be used to determine apparent dates of first use, primarily for irrigation uses.

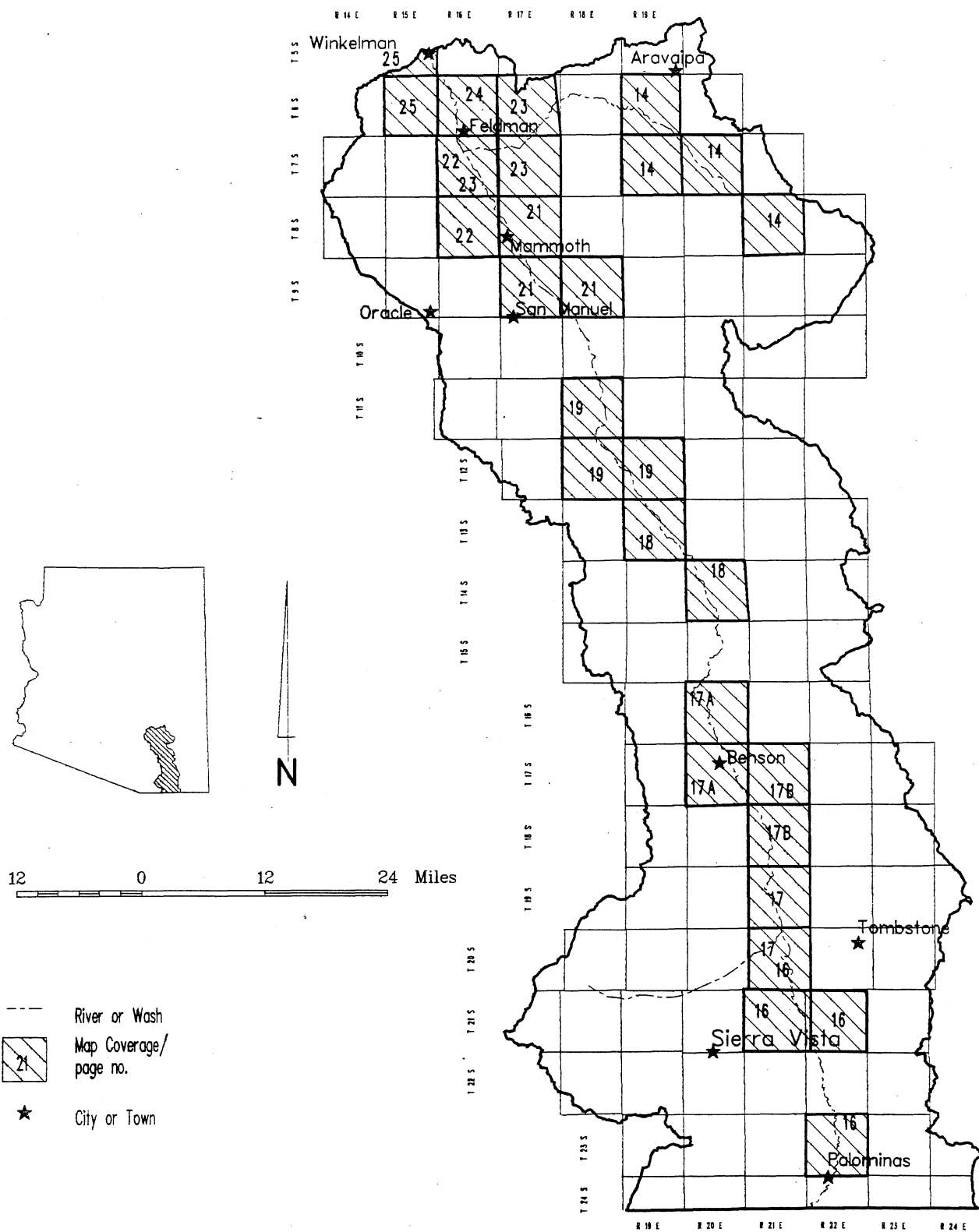


Figure 8-1. Map showing State Water Commissioner map coverage within the San Pedro River watershed.

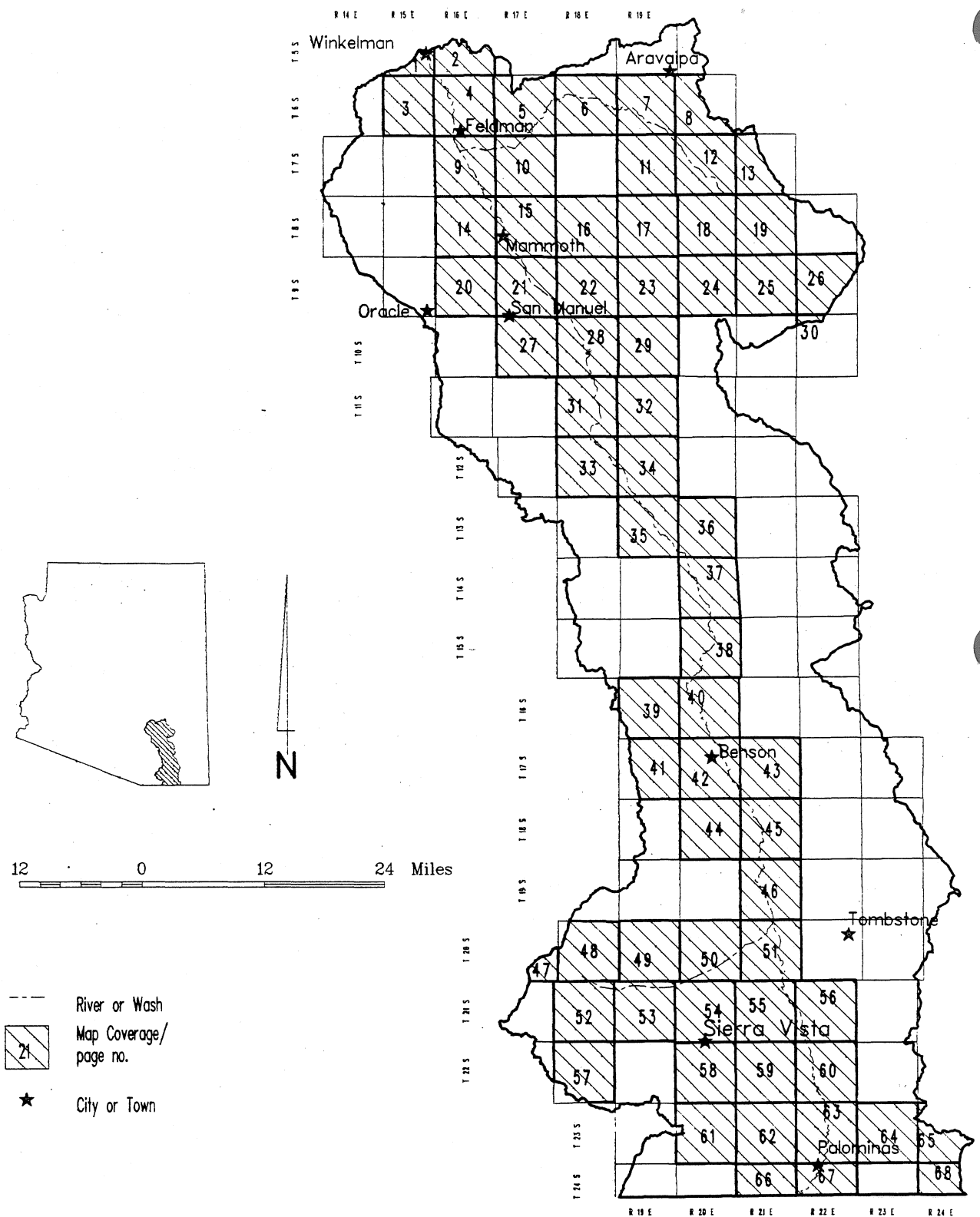


Figure 8-2. Map showing General Land Office plat map coverage within the San Pedro River watershed.

### **Additional Claimant Information**

For irrigation uses of no more than ten acres industrial and mining uses, information obtained from interviews with the claimants may be used as the basis for the apparent date of first use only when the information appears to be reasonable.

### **DISCONTINUED USE AND NO USE FOUND (REPORTED AS "NONE")**

Water uses which are claimed on previous water rights filings, statements of claimant, or decreed rights and which have not been used for at least the most recent five consecutive years but have been used within the past ten years, are classified as a "Discontinued" use. The use of this term does not presume a loss of right by DWR. It is only a classification of water use history and is applied regardless of whether the source of supply is groundwater, surface water, or both sources. If water has not been used for at least ten consecutive years or DWR cannot verify that a water use has ever existed at a claimed location, it is reported as "None."

The evidence required to classify a claimed water use as discontinued consists primarily of field investigations and when possible consultation with the land owner. The water use types for which the date of last water use is determined are irrigation, municipal, industrial, and major mining uses.

The criteria used to classify claimed water use types as "Discontinued" use or "None" is given in Table 8-5.



TABLE 8-5

## CRITERIA TO ESTABLISH DISCONTINUED USE OR NO USE FOUND

<u>WATER USE TYPE</u>	<u>DISCONTINUED USE</u>	<u>NO USE FOUND (REPORTED AS "NONE")</u>
Irrigation	Owner information, field investigation, adjudication filings, aerial photography	Owner information, field investigation, adjudication filings, aerial photography
Domestic	Not considered	Aerial photography, field investigation
Stockpond (1)	Not considered	Aerial photography, field investigation
Stockwatering (Springs)	Not considered	Adjudication and previous filings
Stockwatering (Instream Use)	Not considered	Aerial photography, ownership status, field investigation
Wildlife (Springs)	Not considered	Adjudication and previous filings
Municipal	Owner information, field investigation, Arizona Corporation Commission Data, adjudication filings	Aerial photography, ownership status, field investigation
Commercial/Industrial Mining	Owner information, field investigation, Arizona Corporation Commission Data, adjudication filings	Owner information, field investigation
Small Reservoir (1)	Not considered	Field investigation, aerial photography
Primary Storage Reservoir	Not considered	Field investigation, aerial photography

(1) Field investigation conducted if a stockpond or small reservoir is greater than or equal to two surface acres.

## REPORTING WATER SOURCES AND THEIR CLASSIFICATION

The Court has directed DWR to report all water uses supplied by surface water sources which include surface flow, springs, or seeps. The Court in its order dated September 9, 1988 pertaining to groundwater and surface water interrelationships directed DWR to provide additional information on

groundwater that is withdrawn by wells. Section 4.6, Chapter 4 of this volume of the HSR describes in detail DWR's technical interpretation of the Court's directives and the methodology used to implement them. DWR has established three reporting zones for water withdrawn from wells. Zone 1 delineates the area in which water withdrawn from wells is considered, for purposes of the HSR, to be pumping appropriable subflow according to the criteria provided by the Court's order. The boundaries of Zone 1 are referred to as "brightlines" in this report. The source of supply of these wells are reported as "Groundwater: Zone 1."

Zone 2 describes an area in which wells (supplying uses other than stockwatering, domestic, or irrigation of less than two acres) have the potential to diminish the sources of supply (surface and/or groundwater) available to satisfy federal reserved water right claims. Wells supplying other than the three exempted uses and withdrawing groundwater from Zone 2 are reported as "Groundwater: Zone 2."

Zone 3 is an area in which groundwater withdrawn from wells is determined to have no significant effect on diminishing the water supply available to satisfy water rights established under either state or federal law. Wells located in Zone 3 and the exempted wells in Zone 2 are reported as "Groundwater: Catalogued." Section 3.2, Chapter 3 gives examples of the possible combinations of the water sources and the manner in which DWR reports uses supplied by these sources.

In summary, DWR is reporting the following sources of water and their classification:

1. Surface Water
2. Groundwater: Zone 1
3. Groundwater: Zone 2
4. Groundwater: Catalogued
5. Combinations of the above sources.

DWR also reports when a change in water source has occurred. For example, an irrigation use has been historically supplied by a surface water source, but it is now supplied by well water based upon DWR's investigations. DWR would report this as a water source change in the watershed file report in which the irrigation use occurs.

## **EFFLUENT**

Based upon the APS v. Long wastewater effluent decision by the Arizona Supreme Court (April 1989), certain criteria changes concerning DWR's investigation of uses supplied by effluent have resulted. The Court concluded that sewage effluent is neither groundwater nor appropriable surface water. Therefore, uses supplied by effluent will not be given a potential water right, assigned an apparent date of first use, or given a water duty by DWR.

Water uses supplied by wastewater effluent will continue to be investigated, but no watershed file report will be created. Those uses supplied by effluent are reported in Major Users Reports in Chapter 5.

## **CONVEYANCE SYSTEMS**

Conveyance systems are canals, ditches, or pipelines which transport water from the point of diversion to the place of use. Generally, conveyance systems are mapped only when they are carrying surface water or mixed sources and normally only the conveyance system external to the place of use is shown. For example, the conveyance system from a diversion dam to the point of first use on the fields would be shown, but the internal system of laterals to transport water within the fields normally is not. The only time that an internal distribution system is shown is when it is important in identifying the particular lands susceptible to irrigation from surface or mixed sources supplying the conveyance system.

## **NAMES OF DIVERSIONS, FACILITIES, AND RESERVOIRS**

Names are taken primarily from the statement of claimant and secondly from the previous filings or decrees. However, if multiple filings exist, the name shown on the filing by the owner of the land in question will be used. When the name of a diversion, facility, or reservoir is not available from filings, the name may be taken from a USGS topographic map if it has been identified.

## SHARED WATER USES

A shared use occurs when water is conveyed across ownership or lease boundaries. Common examples are a well supplying irrigation water to the well owner's land and also to an adjoining neighbor's land. Shared uses are discovered and described using information contained in the adjudication filings and previous filings. Shared uses may be field verified during the normal course of a stockwatering, irrigation, or special use field investigations, but do not qualify for a field check in and of themselves. The watershed file report always indicates any nondomestic shared uses that are occurring.

## LOCATION OF WATER USES

Water use locations for all types of uses on privately owned land are generally reported using section, township, and range. Water use locations for BLM, USFS, and state lands are reported according to section, township, and range. Quartering of sections are to ten acres whenever practical. Locational reference for USGS topographic map corners (UTM coordinates) and section lines are acquired from SLD computer files. In the cases of unsurveyed lands, section lines are acquired from BLM protraction diagrams and incorporated into SLD computer files. The USGS topographic maps and USFS hydrology maps are used for general location orientation and to assist in site-specific determinations.

## PROPERTY OWNERSHIP

Water uses are generally organized by the land owner or water supply service areas where water is being used. Water uses on public lands are aggregated into lease or allotment areas. The land owner may be an individual, partnership, corporation, municipality, the State of Arizona or any political subdivision, the United States or one of its agencies. Land ownership data is acquired from the most recent county assessor property ownership roles on file with the Arizona Department of Revenue, county assessor maps, BLM land ownership and lease maps, USFS ownership and allotment maps, or SLD legal descriptions of lease property.



## WATER PROVIDERS

The types of water supply organizations that occur in the watershed include municipal water providers and irrigation water providers. Municipal use is water supplied by a town, city, private water company, or a cooperative water organization through its distribution system for any beneficial purpose. Water uses in this category include all those commonly associated with urban development and may include commercial, industrial, parks, and residential uses. Four or more service connections on separate properties sharing a common water source is categorized as a private water company. An irrigation supplier is an association or company that owns or operates an existing irrigation distribution system consisting of a system of diversions, canals, flumes, ditches, pipes, or other works to deliver surface/groundwater for irrigation use.

The investigation criteria for water supply organizations require field verification of water uses and sources, location of points of diversions (e.g., wells and springs) and storage reservoirs, methods of water collection and conveyance, and methods of wastewater disposal or treatment facilities. Annual water use and amounts diverted are documented from available information including the Arizona Corporation Commission, water supply organizations, USGS, DWR, and other sources.

In addition to the watershed file reports for each water provider, reports are written that describe a general history of the formation of the water supplier, water supply system and method of operation, recent water use trends, and changes in service area boundaries. Reports for irrigation providers include more information involving detailed descriptions of facilities, shareholders/customers, irrigated lands, and apparent dates of first water use.

The service area boundaries, points of diversions, and storage reservoirs for municipal organizations are mapped on the same maps that depict stockwatering uses (regional water use maps). These maps are found in Volume 9 of this HSR. Figure 5-1 shows the general location of municipal service areas in the San Pedro River watershed. Irrigation company/district systems are shown on special maps that are referenced in the major user reports in Chapter 5 of this HSR. Individual properties supplied by these systems are

shown on the subregional water use maps in Volume 9 of this HSR. The mapped facilities include points of diversions, conveyance systems, reservoirs, and other associated information.

Within the municipal or irrigation water supply service areas, irrigation uses greater than or equal to two acres from privately owned wells or with mixed or surface water for any acreage greater than or equal to 0.1 acres, are verified as water uses and are documented separately in individual watershed file reports. However, irrigation uses and other uses supplied by a municipal supplier are not categorized as a separate use, but considered part of the municipal system.

Water users within service areas with private water supplies involving stockwatering, industrial, and mining operations are verified and investigated individually and reported in their own watershed file report.

Irrigation uses or claims supplied either partially or entirely by an irrigation company/district are field verified and reported individually in their own watershed file report even though these uses are referenced in major user reports for the irrigation water provider.

All claimed domestic uses within either a municipality or an irrigation water supply service area are investigated and reported in separate watershed file reports.

#### **PROTESTED PREVIOUS FILINGS**

Protested previous filings are listed in the watershed file report, but not given a status and are not used to establish an apparent date of first use. They are also not matched to a point of diversion or place of use. The data contained in the protested filing is utilized by DWR in its evaluation of the claimed water uses and dates of first beneficial use.

#### **AMENDMENTS TO STATEMENTS OF CLAIMANT**

Amendments to statements of claimant are evaluated and the information is included in the watershed file report and the statement of claimant record.

### 8.3 WATER USE CRITERIA

DWR has developed criteria to be used in the reporting of PWRs within each watershed file report. This section describes the reporting criteria to be used for each water use classification.

#### IRRIGATION (IR, OT, AND RC)

Irrigation PWRs are reported on the basis of water source (surface water, Zone 1, Zone 2, or Zone 3 groundwater), date of first use, acreage, and association with a domestic use. The criteria used is outlined in Table 8-6. It should be noted that in some special situations, DWR may also create irrigation PWRs based on crop types and irrigation systems even though the sources and apparent dates of first use are the same. The reason is to aid in the quantification of irrigation water uses.

For example, a field may be supplied by a surface water diversion and have an apparent date of first use of 1920. During the course of DWR's field investigations and crop surveys, it is found that one part of the field is cotton irrigated by furrows and the other part of the field is permanent pecan trees using border flood irrigation. DWR would create two distinct PWRs for this case to account for the different crops and irrigation systems.

**TABLE 8-6**  
**CRITERIA TO ESTABLISH IRRIGATION PWRs**

**1. IRRIGATION WITHIN THE ZONE 1**

<b>WATER SOURCE TYPE</b>	<b>TOTAL LAND AREA UNDER IRRIGATION</b>	<b>DOMESTIC USE PRESENT</b>	<b>IRRIGATION WATER USE TYPE CREATED</b>	<b>MAPPED</b>	<b>COMMENT</b>
Surface/ Zone 1, Zone 2, or Zone 3 Well	greater than or equal to 0.1 acres	no	IR, OT, RC	yes	Source is a direct surface water diversion not supplied by a water company or municipal distribution system. PWR type depends upon irrigation purpose.
Surface/ Zone 1, Zone 2, or Zone 3 Well	greater than or equal to 0.1 acres, but less than two acres	yes	OT	yes	Source is a direct surface water diversion not supplied by a water company or municipal distribution system. When associated with a domestic use, all outside irrigation is reported as OT. DM PWR may be created.
Zone 1 Well	less than 0.5 acres	yes	none	no	DM PWR created, if supplied by a Zone 1 well. No separate irrigation PWR is reported.
Zone 1 Well	less than 0.5 acres	no	none	no	
Zone 1 Well	greater than or equal to 0.5 acres, but less than two acres	yes	OT	yes	DM PWR created for inside use if the domestic use is supplied by a Zone 1 well. All outside irrigation reported as OT.
Zone 1 Well	greater than or equal to two acres	yes	IR, OT, RC	yes	DM PWR also created, if the domestic use is supplied by a Zone 1 well.
Zone 1 Well	greater than or equal to 0.5 acres	no	IR, OT, RC	yes	
Effluent	any size	yes or no	none	yes	Lands irrigated by effluent are not assigned a PWR unless the effluent is mixed with a groundwater or surface water source supplying a mapped PWR. Lands irrigated solely by effluent will be mapped on special water use map and described in the Major Users Reports or Unusual Circumstances sections of Volume 1.



TABLE 8-6 (cont'd)

## II. IRRIGATION WITHIN ZONE 2

WATER SOURCE TYPE	TOTAL LAND AREA UNDER IRRIGATION	DOMESTIC USE PRESENT	IRRIGATION WATER USE TYPE CREATED	MAPPED	COMMENT
Surface/ Zone 2 Well	greater than or equal to 0.1 acres	no	IR, OT, RC	yes	Source is a direct surface water diversion not supplied by a water company or municipal distribution system.
Surface/ Zone 2 Well	greater than or equal to 0.1 acres, but less than two acres	yes	OT	yes	DM PWR created for inside use, if the domestic use is supplied by an outside irrigation reported as OT.
Zone 2 Well	less than two acres	yes or no	none	no	Well is catalogued.
Zone 2 Well	greater than or equal to two acres	yes or no	IR, OT, RC	yes	DM PWR may also be created, if the domestic use is supplied by an independent well.

## III. IRRIGATION OUTSIDE BOTH ZONES (ZONE 3)

SOURCE TYPE	TOTAL LAND AREA UNDER IRRIGATION	DOMESTIC USE PRESENT	IRRIGATION WATER USE TYPE CREATED	MAPPED	COMMENT
Surface/ Zone 3 Well	greater than or equal to 0.1 acres	no	IR, OT, RC	yes	
Surface/ Zone 3 Well	greater than or equal to 0.1 acres, but less than two acres	yes	OT	yes	DM well catalogued. All outside irrigation reported as OT.
Zone 3 Well	any size	yes or no	none	no	Well is catalogued.

## **DOMESTIC (DM)**

Domestic use PWRs are reported for all residences and small commercial establishments with an independent water supply, usually a domestic well. Trailer parks, small businesses, and restaurants fall within this category. Associated irrigation of less than two acres from a domestic well is included in a domestic use PWR unless the domestic well is located within Zone 1, then the acreage is less than 0.5 acres.

## **MUNICIPAL (MU)**

Municipal use PWRs are reported for all municipal water systems, private water companies, and all domestic water improvement districts or cooperatives supplying four or more users. All water uses supplied through a municipal distribution system are reported as a part of the municipal PWR.

**Example 8-3** Water delivered to a city golf course through a municipal water system. The golf course uses the water for turf irrigation and domestic uses at the clubhouse. No PWRs are assigned to the golf course. The water use is all reported as part of the MU PWR for the city supplying the water.

**Example 8-4** Water delivered by a residential subdivision water improvement district to twenty-five homes for domestic use. The district which was formed by the homeowners will receive an MU PWR for its water system. The individual homeowners will not be assigned a domestic use PWR. For water use at the residences, however, they may receive a PWR for any other independently supplied water uses.

Separate municipal PWRs will be reported for municipal providers where DWR can determine that there are distinct sources of supply and appurtenant distribution systems within the provider's service area. For example, the City of Sierra Vista municipal supply is provided by three wells which have separate distribution systems and service areas. Three MU PWRs have been reported for this situation.

## **INDUSTRIAL/COMMERCIAL AND MINING (ID AND MI)**

Industrial/commercial or mining PWRs are reported for all commercial, industrial, or mining operations with independent water sources. Some examples of industrial/commercial operations within this classification are: sand and gravel companies, dairies, industrial plants or factories, nurseries or greenhouses, commercial fish farms, and commercial livestock feedlots. Small businesses such as a motel or restaurant with an independent water supply may be classified as a domestic use (DM).

Mining PWRs will be reported for all operations that have developed an independent water supply used for mineral or coal extraction, the processing of ore, or the transportation of mined materials through a slurry pipeline.

## **IMPOUNDMENTS (SP, SR, AND PS)**

Any impoundment that stores surface water or groundwater for beneficial use is assigned a PWR. If the impoundment is not constructed on a natural drainage channel or stream, then it must receive water from a groundwater or surface water point of diversion (POD) to be assigned a PWR. Impoundment classifications are shown in Table 8-7 and described below.

### **Stockpond (SP)**

A stockpond is an impoundment which stores surface water for the primary purpose of watering livestock and/or wildlife. A stockpond can also be supplied supplementally from groundwater.

A typical stockpond in the San Pedro River watershed usually consists of a small earthen dam pushed up along an ephemeral drainage channel. These impoundments are normally constructed without any outlet controls other than a spillway. Surface area size (acres) and capacity (acre-feet) are not considerations in the classification of an impoundment as a "stockpond," however, 93 percent of all stockponds in the San Pedro River watershed are less than two surface acres in size while 97 percent of the stockponds in the watershed are less than fifteen acre-feet in capacity.

Groundwater from a windmill well or stock well that is pumped into an off channel pond or metal tank for the purpose of watering stock or wildlife is not assigned a PWR, but is reported in the watershed file report if it is claimed.

### Small Reservoir (SR)

A small reservoir is an impoundment which stores surface water or groundwater that has a maximum storage capacity equal to or less than fifteen acre-feet. The primary use of the water must be other than stockwatering or wildlife watering.

These impoundments are generally multi-purpose in nature. An example of an impoundment within this classification would be an off channel reservoir supplied by an irrigation district canal. Typical water uses for such a reservoir may include irrigation storage, stockwatering, and recreation/fish and wildlife uses.

TABLE 8-7  
IMPOUNDMENT CLASSIFICATIONS

<u>IMPOUNDMENT CLASSIFICATION</u>	<u>CONSIDERED A POTENTIAL WATER RIGHT</u>	<u>METHODS OF VERIFICATION</u>	<u>FIELD SURVEY REQUIRED TO MEASURE CAPACITY</u>	<u>MAPPED</u>
Stockpond	Yes	Aerial photography, field investigation	Yes, only if surface area is greater than or equal to two acres	Yes
Small Reservoir	Yes	Aerial photography, field investigation	Yes, only if surface area is greater than or equal to two acres	Yes
Primary Storage Reservoir	Yes	Aerial photography, field investigation	Yes, only if surface area is greater than or equal to two acres	Yes
Stockpond served by a stockwell	No	Not verified	No	No
Tailwater	No	Aerial photography, field investigation	No	Yes
Regulatory	No	Aerial photography, field investigation	No	Yes



Impoundments that serve as an integral part of an irrigation PWR delivery system are termed "regulatory reservoirs." These reservoirs are normally used as a temporary holding system for pumped water. The water held in these temporary impoundments is released at a set rate to irrigate a crop. Regulatory reservoirs are singular in purpose and result in little consumptive water use other than normal irrigation delivery system seepage or evaporation losses. For this reason, regulatory reservoirs are not assigned a PWR, but are considered a part of the conveyance system for an irrigation (IR, OT, or RC) PWR.

Tailwater ponds collect excess water at the downslope end of irrigated fields. These impoundments are not assigned a PWR because the water collected is actually a portion of the water use assigned to the irrigation PWR.

Impoundments that have been constructed on a drainage for flood or erosion control purposes usually have an open outlet pipe at the base of the dam to release floodwater flows at a controlled rate. These impoundments have no permanent water storage capability and are not assigned a PWR. If the impoundment has an outlet gate or valve that can be closed to store water or if the open outlet pipe is above the bottom of the dam with some amount of dead storage below the pipe, then a PWR will be created for the impoundment based on its storage purpose and permanent storage capacity.

#### **Primary Storage Reservoir (PS)**

A primary storage reservoir is an impoundment which stores surface water or groundwater that has a maximum storage capacity greater than fifteen acre-feet. The primary use of the water must be other than stockwatering or wildlife watering.

The only criteria that separates this PWR classification from the small reservoir (SR) classification is storage capacity.

#### **STOCKWATERING/WILDLIFE (SW AND WL)**

These types of water uses are utilized primarily for watering livestock (SW) or wildlife (WL). The source may be a spring, cienega, seep, natural lake, natural depression, sink, bog, or flowing stream. If stockwatering and

wildlife water uses are both claimed, a stockwatering (SW) PWR is created due to the larger consumptive use associated with livestockwatering.

Stockwatering or wildlife water use from seeps or springs is generally not verified during field investigations (only if the spring is a diversion point for some other use, such as an irrigated field), and springs are almost never verifiable from aerial photographs. To obtain a stockwatering (SW) or wildlife (WL) PWR on a spring, the land owner or lessee must have filed a statement of claimant (39) and a previous filing or decree (10, 20, 3R, 33, 36, 38, or 4A).

Stockwatering or wildlife water use from streams, rivers, natural lakes, or natural depressions is verified by identifying that the claimant owns or leases land at the site of the natural lake or depression or along the claimed water course. A statement of claimant or a previous filing must be filed by the land owner or lessee to obtain a stockwatering or wildlife PWR from this source.

The legal location for stockwatering or wildlife water use from creeks, streams, rivers, or ephemeral drainages is given a  $\frac{1}{4}$   $\frac{1}{4}$   $\frac{1}{4}$  section-township-range designation where the water course enters the property or lease allotment boundary.

For stock or wildlife water use from seeps, springs, bogs, natural lakes, or natural depressions, the legal location is given a  $\frac{1}{4}$   $\frac{1}{4}$   $\frac{1}{4}$  section-township-range designation at the location of the seeps, spring, bog, etc. Table 8-8 lists the criteria to establish stockwatering PWRs.

## DIVERSIONS (DV)

A diversion (DV) PWR is reported for large surface water diversions serving many users or irrigating large acreages and for diversions which export water out of a watershed. The purpose of a DV PWR is for the quantification of the amount of water diverted and to assess the impacts on downstream users. For example, DV PWRs are reported for the St. David Irrigation District, the Pomerene Water Users Association, and ASARCO's well fields which export water to ASARCO's Hayden and Ray Units located in the Upper Gila River watershed. A single divertor on an isolated tributary may or may not have a DV reported for the diversion.

**TABLE 8-8**  
**CRITERIA TO ESTABLISH STOCKWATERING PWRs**

<u>TYPE OF FACILITY</u>	<u>CRITERIA FOR VERIFICATION OF A POTENTIAL WATER RIGHT</u>	<u>WATER USE TYPE CLASSIFICATION</u>	<u>MAPPED</u>
Springs	A matched set of filings consisting of an adjudication claim along with a previous filing/deed. (2)	SW (1)	Yes
Instream use	Aerial photography along with an adjudication claim or previous filing/deed filed by the current owner or lessee of land having proven access to the stream in question. (3)	SW	No
Stockponds less than two surface acres	Aerial photography.	SP	Yes
Stockponds greater than or equal to two surface acres	Aerial photography and on site inspection.	SP	Yes
Stockwells	Generally not field verified. Groundwater supplied reservoirs associated with an irrigation use may be mapped, though no potential water right is assigned.	None (4)	No

- (1) A WL use type may be substituted for SW if the use is found to serve only wildlife.  
(2) Springs that also serve as a point of diversion for irrigation uses are inspected on site.  
(3) Filings by a previous owner or lessee may be used if the transfer of ownership or lease status can be readily documented.  
(4) No PWRs are created for stockwatering uses supplied by wells.

#### **INCIDENTAL WATER USES**

An incidental water use is a type of secondary use associated with a more primary water use PWR.

**Example 8-5** Seventy (70) acres of irrigated pasture land for cattle grazing is supplied by a well. An irrigation (IR) PWR is created. The well also supplies several watering troughs for the cattle. The use of water for stockwatering is incidental to the use of water for irrigation from the same source.

**Example 8-6** A stockpond is located on a small wash. The land owner claims stockwatering and wildlife water use from the pond. A stockpond (SP) PWR is created. The stockpond's primary use is to water the owner's livestock. Any use of the water by wildlife is considered incidental to the stockwatering use.

## **REPORTING NON-INDIAN FEDERAL LAW CLAIMS**

This section addresses non-Indian federal reserved rights (FRR) claims. The legal basis of an FRR is markedly different from the basis of a water right under state law. As a result, the process used to investigate and report potential FRRs is different from "state rights" investigations. Furthermore, the unique nature of an FRR requires flexibility in the investigation procedures and in the reporting scheme.

The following outline details investigation criteria for an FRR.

1. All non-Indian FRR claims within the San Pedro River watershed are addressed in the San Pedro River watershed HSR.
2. All non-Indian claims which base a water right on a federal reserved right are included in a watershed file report.
3. All potential non-Indian FRRs are included in the HSR whether a claim has been filed or not.
4. Investigation criteria which apply to PWRs under state law are utilized when inventorying current water uses on a federal reservation, with the following exceptions:
  - a. No investigation period is considered.
  - b. All uses claimed on a statement of claimant are assigned a water use number unless DWR's evidence refutes the claim.
  - c. Apparent dates of first use are not assigned to the water uses.
5. Information unique to a potential FRR such as the date of establishment of a federal reservation, the boundaries of a reservation, and claimed future water uses is reported.

## 8.4 INVESTIGATION PROCEDURES

This section describes the investigation procedures utilized by DWR to document water use claims or activities. The methods were established by DWR to provide an efficient yet accurate way of investigating the thousands of different water use situations that occur within the river system. Table 8-9 shows the method of investigation for each type of use.

### IRRIGATION WATER USES

Irrigation water uses receive the most thorough and detailed investigation of all the water use categories reported in the HSR. The reasons for this are clear: irrigation water use accounts for the overwhelming majority of water consumption within the Gila River system and many of the irrigation activities within the Gila River system were established in the late 1800s and thus would appear to have senior water rights.

The primary investigative tool employed by DWR is the on site field inspection. During the course of the inspection the following items are located and mapped on current aerial photography: water sources and points of diversion, conveyance systems, irrigated areas and all associated reservoirs, and type of crops being grown. As part of this inspection, the current land owner is interviewed (if possible) concerning past and present irrigation activity. The above information is then transferred to the subregion water use maps depicted in Volume 9 of this HSR.

In order to establish apparent dates of first use for irrigation water uses, historical aerial photography is utilized to evaluate the past water use history of a particular irrigated parcel. The 1935 aerial photography is the earliest that can be obtained and utilized in the historical analysis. DWR strives to have, at a minimum, aerial photography covering each ten year period up to the present. The aerial photography is used to verify or refute the claimed first use date and to determine if there has been a period of continuous water use for the irrigated parcel.

As mentioned in Section 8.2, a historical analysis is undertaken of an area or region to determine the approximate dates of settlement and when water



**TABLE 8-9**  
**METHOD OF INVESTIGATION BY TYPE OF USE**

TYPE OF USE	METHOD OF INVESTIGATION
I. Irrigation	On site inspection, aerial photography, claimant interviews, and historical analysis.
II. Domestic	Aerial photography. (1)
III. Stockwatering and Wildlife	
A. Springs	A matched set of filings consisting of an adjudication claim along with a previous filing/decree. (2)
B. Instream use	Aerial photography along with an adjudication claim or previous filing/decree filed by the current owner or lessee of land having proven access to the stream in question. (3)
C. Stockponds less than two surface acres	Aerial photography.
D. Stockponds equal to or greater than two surface acres	Aerial photography and on site inspection.
E. Stockwells	Generally not investigated. Reported only if claimed. Groundwater supplied reservoirs associated with an irrigation use may be mapped though no potential water right is assigned.
IV. Water Supply Organization (Municipal Use)	On site inspection, Arizona Corporation Commission maps, claimant interview and information. (4)
V. Mining and Industrial	Aerial photography, records, on site inspection, and claimant interview and information.
VI. Reservoirs	
A. Less than two acres	Aerial photography.
B. Equal or greater than two surface acres	Aerial photography and on site inspection.

- (1) Occasionally a domestic use may be identified during the course of stockwatering or irrigation field investigations that was not visible on an aerial photograph.
- (2) Springs that also serve as a point of diversion for irrigation, municipal, industrial, or mining uses are inspected on site.
- (3) Filings by a previous owner or lessee may be used if the transfer of ownership or lease status can be readily documented.
- (4) Self-supplied nonirrigation uses located within the service area of a municipal water provider are not investigated unless a statement of claimant or previous filing has been filed.

development began to occur. This information can be used to verify claim dates that are earlier than the available historical aerial photography.

#### **DOMESTIC WATER USES**

Current aerial photography is utilized to verify the existence of a domestic water use. During the course of an on site investigation, a domestic water use may be discovered that was not apparent or visible on an aerial photograph. Domestic water uses without any water rights claims or filings and which are located within a municipal water provider service area are not verified and are included in the municipal PWR.

#### **STOCKWATERING AND WILDLIFE WATER USES**

There are four types of stockwatering/wildlife facilities that require some form of investigation. These are:

1. Springs - Generally, springs are not field verified, unless they supply a water use which requires an on site inspection.
2. Instream Stockwatering Uses - These water uses are investigated and verified utilizing current aerial photography and USGS topographic maps to verify the existence of the watercourse. Statements of claimant and/or previous filings are also evaluated in the verification process. It should be noted that the land must have proven access to the watercourse under investigation in order for an instream stockwatering use to be given a PWR.
3. Stockponds - Stockponds less than two surface acres are verified using aerial photography. Stockponds greater than or equal to two surface acres are verified using aerial photography and on site inspection. The on site inspection consists of determining the location of the spillway and measuring the area and capacity of the pond at spillway elevation employing standard surveying techniques.
4. Stockwells - These are generally not field investigated and not given a PWR. They are reported only if claimed.

## **WATER SUPPLY ORGANIZATIONS**

Water supply organizations are investigated through the use of on site inspections and claimant interviews. Arizona Corporation Commission maps and use figures are utilized to map the water service area for franchised water companies and to provide an estimate of yearly water usage. All points of diversion, impoundments, and water storage facilities are inspected. Points of diversion and impoundments are mapped. All water supply organizations have a report prepared which describes the history of the development of the organization, current facilities, and water use data.

## **INDUSTRIAL AND MINING WATER USES**

Industrial and mining water uses are investigated in a manner similar to that required for water supply organizations. The facility is inspected on site and all points of diversion, impoundments, and places of use are mapped. A report is prepared describing the activity and its water use.

## **IMPOUNDMENTS**

Impoundments include small reservoirs and primary storage reservoirs. The existence of an impoundment is verified using aerial photography. If the impoundment is two surface acres or larger, it is field investigated including measurement of its maximum controlled area and capacity.

## 8.5 HSR REPORTING FORMAT

### HSR FORMAT

The HSR consists of the following volumes:

- Volume 1: General Assessment
- Volume 2: Comprehensive Indices
- Volumes 3-6: Watershed File Reports
- Volume 7: Zone 2 Well Reports (formerly Wells Subject to Federal Claims)
- Volume 8: Catalogued Wells
- Volume 9: Water-Use Maps.

Each of these volumes is described below.

#### Volume 1: General Assessment

The purpose of the general assessment is to provide pertinent information about the watershed. The history of the adjudication proceeding is described as are the various types of water rights claims and decrees. An overview of the geography, geology, climate, vegetation, economy, and history of the area is presented. A major focus of the general assessment is an in-depth hydrologic analysis of water resources, water uses, and their interactions. The discussion of water resources concerns the quantity and quality of the water supply available from surface sources, groundwater sources, and trans-river system exports (e.g., ASARCO inter-basin transfer). Water uses are described in terms of natural uses such as phreatophytes (riparian plants) and cultural uses such as irrigation, municipal, industrial, mining, stockwatering, and reservoir evaporation. The quantities of water usage for the two categories are determined and depicted in both tabular and graphical forms. The hydrologic analysis consists of describing the interaction of surface water and groundwater systems and the effect of natural, cultural, and transmission losses and gains on these systems. Undepleted flow characteristics are estimated and a water budget for the watershed is developed.

The remaining portions of the general assessment provide additional information on major water users (municipal water providers, irrigation water providers, large industrial/mining users, and non-Indian federal law claims)

and unusual water rights or water using circumstances that occur within the watershed. DWR's water use investigation criteria, procedures, and reporting format are also explained. The final section of the general assessment is an explanation of the methodologies employed to estimate quantities of water use. Volume 1 also contains maps of the hydrologic determinations.

## **Volume 2: Comprehensive Indices**

This volume contains nine different indices that provide an efficient way of locating specific watershed file reports for evaluation by the Court/Master and the parties to the adjudication proceedings. These indices are listed below:

- Index #1 - Relates a land owner to a watershed file report.
- Index #2 - Relates a watershed file report to a land owner.
- Index #3 - Relates a statement of claimant to a watershed file report and land owner.
- Index #4 - Relates the location of a potential water right to a land owner.
- Index #5 - Relates the location of a point of diversion to a land owner.
- Index #6 - Relates the water source to a PWR and land owner.
- Index #7 - Relates the water source to a POD and land owner.
- Index #8 - Relates the apparent date of first use to a PWR and land owner.
- Index #9 - Relates a decree to a watershed file report and land owner.

## **Volumes 3 through 6: Watershed File Reports**

DWR developed a computerized inventory and reporting system known as the Adjudication Investigation System (AIS) to report all the pertinent water use information associated with water uses investigated in a watershed. Data such as: notices of appropriation, old rights, claimed rights, water rights claims, certificated water rights, decreed water rights, quantities claimed, location of uses and/or diversions, apparent dates of first use, or estimated quantities of use can be retrieved and displayed in a tabular format. This tabular format is called the watershed file report and its basis is the watershed file. Every water use or claim investigated by DWR is on file in the AIS and reported in the HSR. There are two types of reports produced from the AIS: 1) a domestic watershed file report which contains only domestic



uses supplied by groundwater and for which no claims were filed; and 2) a watershed file report which contains all other watershed files created from the investigations.

A watershed file is created in the AIS for: 1) each water use discovered during the investigations that was of a type included within the scope of the investigations, and 2) each notice of appropriation (10), "3R," "33," "36," "38," "39," "4A," "0," and "C" on file with DWR and each decreed right (assigned a number with "20") known to exist by DWR and not matched to a water use during the investigation process. Using this approach, all water uses of the type investigated by DWR, all rights, and all claims are reported through the AIS.

For the first situation described above, water use is the basis for the creation of a watershed file in the AIS. All other information gathered during the course of the investigation such as land ownership, source of water, and filings become attributes of the watershed file rather than the basis for the creation of the file. All rights and claims of record that are not matched to a water use are accounted for in watershed files which are created to report their status.

The information that is included in the two types of watershed file reports is described below. Not all watershed files contain all of the information outlined. Some of the information may not be available or pertinent to a given watershed file.

#### Domestic Use Watershed File Report

- (1) the land owner, lessee, or allottee of record for the land area included
- (2) the watershed file report number
- (3) the location of one domestic use
  - (a) shown by county assessor's description
  - (b) shown by legal description

An example domestic use watershed file report is shown as follows.

### EXAMPLE DOMESTIC USE WATERSHED FILE REPORT

<u>LAND OWNER</u>	<u>WATERSHED FILE REPORT NUMBER</u>	<u>CO</u>	<u>BK</u>	<u>MAP</u>	<u>PRCL</u>	<u>SUBDIV</u>	<u>SC</u>	<u>TWNP</u>	<u>RNGE</u>
ADAMS, JOHN C.	111-20-AA-001	02	106	034	013C	NENENE	24	200S	200E
BAKER, A.	111-23-BBB-001	02	105	052	0022	NWNWNW	12	230S	200E
JONES, A.D.	111-24-CCC-001	02	102	010	0030	SWSWSW	34	230S	230E
SMITH, K.P.	111-20-DDDD-001	02	106	027	0021	SESESE	23	200S	200E
WASHINGTON, G.	111-24-AAA-001	02	110	057	0014	NENENE	35	220S	230E

#### Watershed File Report

- (1)
  - (a) all land owner(s) of record for the land area included
  - (b) the watershed file report number
  - (c) the lessee or allottee of record for the land included
  - (d) an identification of the lease or allotment by name or number
- (2) applicable filings and decrees
  - (a) the filing number of the applicable filing (10, 20, 3R, 33, 36, 38, 39, 3A, 4A, "O," and "C")
  - (b) the filing status of all claims such as certificated, permitted, protested, amended, or questionnaire received
  - (c) the uses claimed in the applicable filing such as: irrigation use, domestic use, or municipal use
  - (d) the quantity claimed in acre-feet per year for the claimed use
  - (e) the location of the claimed use by legal description
  - (f) the claimed date of beneficial use
  - (g) the location of the claimed point of diversion by legal description
- (3) Department of Water Resources' analysis of applicable filings and decrees
  - (a) the filing number of the applicable filing
  - (b) the uses claimed or referenced in the applicable filing
  - (c) the uses found by DWR through its investigations
  - (d) the point of diversion number(s) which applies to this filing

- (e) the potential water right number(s) (PWRs) which applies to this filing
- (4) diversions
  - (a) the type and number assigned to each diversion
  - (b) the location of the diversion(s) by legal description
  - (c) the water source name and its classification such as: "Surface Water: San Pedro River," "Groundwater: Zone 2," or "Groundwater: Catalogued." If the diversion is shared or unused, these are also listed in this section
- (5) uses
  - (a) the type and number of each water use PWR
  - (b) the location of the use(s) by legal description
  - (c) the diversions that supply water to the use(s)
  - (d) the type of water in use such as: "Surface Water," "Groundwater: Zone 1" or "Groundwater: Zone 2"
  - (e) the earliest aerial photography utilized to verify the existence of the use
  - (f) the identification of uses which have had a change in water source such as from surface water to groundwater
  - (g) the name of the facility if applicable
- (6) reservoirs
  - (a) the type and number of each reservoir PWR
  - (b) the location of each reservoir by legal description
  - (c) the diversion(s) that supply water to each reservoir
  - (d) the type of water source in use
  - (e) the earliest aerial photography utilized to verify the existence of the reservoir if applicable
  - (f) the name of the reservoir
  - (g) the purpose of the reservoir storage such as irrigation, municipal, or recreation

- (7) shared uses and diversions
  - (a) the applicable use or diversion that is shared and the associated watershed files
- (8) PWR summary
  - (a) the type and number of each PWR
  - (b) the statements of claimant which apply to each PWR
  - (c) the previous water rights filings or decrees which apply to each PWR
  - (d) the apparent date of first use and the data sources utilized to determine the apparent date of first use such as: aerial photography, claimant interview, or water rights filing or claims
  - (e) the type of water sources and their classification associated with each PWR such as: "Surface Water: San Pedro River," "Groundwater: Zone 2," or "Groundwater: Catalogued"
- (9) quantities of use
  - (a) the water use types and PWR number
  - (b) the quantification type
  - (c) the applicable acreage for irrigation PWRs and the applicable surface area for reservoir PWRs
  - (d) the type of crop (irrigation water uses only)
  - (e) the efficiency of the irrigation system (irrigation uses only)
  - (f) the water duty (irrigation uses only)
  - (g) the estimated volume or storage capacity
  - (h) the remarks section
  - (i) the diversion PWR number
  - (j) the diversion capacity
  - (k) the maximum demand rate
  - (l) the decreed diversion rate
  - (m) the certificated diversion rate

- (o) the estimated volume diverted
- (10) explanation section of the watershed file report

The Introduction Section to Volumes 3 through 6 provides an in-depth discussion of each of the data elements of the watershed file report outlined above. An example watershed file report is shown below.

### EXAMPLE WATERSHED FILE REPORT

<u>LAND OWNER</u>	<u>WATERSHED FILE REPORT NUMBER</u>
SMITH, J.E.	111-23-ADD-006

#### A P P L I C A B L E   F I L I N G S   A N D   D E C R E E S

##### CLEARLY STATED INFORMATION FROM FILINGS AND DECREES

<u>FILING NO.</u>	<u>FILING STATUS</u>	<u>USES</u>	<u>QUANTITY IN AFA</u>	<u>USE LOCATION</u>	<u>CLAIM DATE</u>	<u>DIVERSION LOCATION</u>
				<u>SECTION</u> <u>TWNP</u> <u>RNGE</u>		<u>SECTION</u> <u>TWNP</u> <u>RNGE</u>
33-0000509	PERMIT	DOMESTIC	3.00	NE30   230S   210E	1930	
33-0012345	CERTIF.	IRRIGATION	500.00	NE30   230S   210E	1950	SWSW31   230S   210E
36-1000000					<1919	
36-2000000		IRRIGATION	1,000.00	NE30   230S   210E	1930	SESE30   230S   210E
		DOMESTIC	3.00			
38-0000900		STOCK	5.00	30   230S   210E	1950	30   230S   210E
39-0000100		IRRIGATION	700.00	NE30   230S   210E	1936	SWSW31   230S   210E
		DOMESTIC				
		MINING				
39-0000101		IRRIGATION	500.00	NE30   230S   210E	1950	NESW30   230S   210E
		STOCK				
		WILDLIFE				
39-0000102		IRRIGATION	200.00	NE31   230S   210E	1936	NWSESE36   230S   210E
39-0000103	QUE.RECD	STOCK	10.00	32   230S   210E		SESE31   230S   210E
39-0000104		STOCK	5.00	30   230S   210E	1950	30   230S   210E
39-0000105		IRRIGATION	25.00	SESE31   230S   210E	<1940	



**EXAMPLE WATERSHED FILE REPORT**  
(continued)

D W R   A N A L Y S I S   O F   F I L I N G S   A N D   D E C R E E S

<u>FILING NO.</u>	<u>USES CLAIMED OR REFERENCED</u>	<u>USES FOUND BY DWR</u>	<u>APPLIES TO DIVERSIONS</u>	<u>APPLIES TO PWR NUMBERS</u>
33-0000509	DOMESTIC	DOMESTIC		DM001
33-0012345	IRRIGATION	IRRIGATION	D01	IR003,SR001,DV001
36-1000000				
36-2000000	IRRIGATION	IRRIGATION	D01,W01	DM001,IR001,IR002
	DOMESTIC	DOMESTIC		IR003,SR001,DV001
38-0000900	STOCK	STOCK		SP001
39-0000100	IRRIGATION	IRRIGATION	W01	DM001,IR001
	DOMESTIC	DOMESTIC		
	MINING	NONE		
39-0000101	IRRIGATION	IRRIGATION	D01	IR003,SR001,DV001
	STOCK	INCIDENTAL		
	WILDLIFE	INCIDENTAL		
39-0000102	IRRIGATION	IRRIGATION	S01,W02	IR002
39-0000103	STOCK	NONE		
39-0000104	STOCK	STOCK		SP001
39-0000105	IRRIGATION	DISCONTINUED		IR090

D I V E R S I O N S

<u>DIV #</u>	<u>LOCATION</u>			<u>DIVERSION NAME</u>	<u>WATER SOURCE AND CLASSIFICATION</u>
	<u>SECTION</u>	<u>TWNP</u>	<u>RNGE</u>		
D01	SWSWSW31	230S	210E	MANY FARMS I.D. DITCH	SURFACE WATER: SAN PEDRO RIVER SHARED
S01	SENESE30	230S	210E	BUBBLE SPRING	SURFACE WATER: SAN PEDRO RIVER
W01	NESESE30	230S	210E	UNNAMED	GROUNDWATER: ZONE 1 OF THE SAN PEDRO RIVER
W02	NWSESE36	230S	210E	UNNAMED	GROUNDWATER: ZONE 2
W03	SESESE36	230S	210E	UNNAMED	GROUNDWATER: CATALOGUED UNUSED

U S E S

<u>PWR #</u>	<u>LOCATION</u>			<u>SUPPLIED BY DIVERSIONS</u>	<u>WATER SOURCES</u>	<u>PHOTO</u>	<u>SOURCE</u>	<u>FACILITY NAME</u>
	<u>SECTION</u>	<u>TWNP</u>	<u>RNGE</u>			<u>DATE</u>	<u>CHANGE</u>	
DM001	NENENE30	230S	210E	W01	GROUNDWATER: ZONE 1		NO	
DM002	SESESE30	230S	210E		GROUNDWATER: CATALOGUED		NO	
DV001	SWSWSW31	230S	210E	D01	SURFACE WATER		NO	
IR001	SE30	230S	210E	W01	GROUNDWATER: ZONE 1	1935	NO	
IR002	NENE31	230S	210E	S01,W02	SURFACE WATER	1935	NO	
					GROUNDWATER: ZONE 2			
IR003	30	230S	210E	D01	SURFACE WATER	1950	YES	
IR090	SESE31	230S	210E	D01	SURFACE WATER	1955	NO	
OT001	SESE31	230S	210E	W01	GROUNDWATER: ZONE 1	1986	NO	

# EXAMPLE WATERSHED FILE REPORT (continued)

## RESERVOIRS

PWR #	LOCATION			SUPPLIED BY DIVERSIONS	WATER SOURCES	PHOTO DATE	RESERVOIR NAME	STORAGE PURPOSE
	SECTION	TWNP	RNGE					
SP001	NENENE30	230S	210E		SURFACE WATER		SMITH TANK	STOCKWATERING
SR001	SESESE31	230S	210E	D01,W02	SURFACE WATER GRNDWTR: ZONE 2	1935	SMITH POND	IRRIGATION RECREATION STOCKWATERING OTHER

## SHARED USES AND DIVERSIONS

\*\* DIVERSION D01 OPERATED BY THE MANY FARMS IRRIGATION DISTRICT (FILE 111-01-XXX-0) SUPPLIES WATER TO PWRS IN THIS FILE.

## PWR SUMMARY

PWR #	APPLICABLE	APPLICABLE	*APPARENT FIRST USE DATE*		WATER SOURCES AND CLASSIFICATIONS
	ADJ FILINGS	PRE FILINGS	DATE	BASIS FOR DATE	
DM001	39-0000100	33-0000509 36-2000000			GROUNDWATER: ZONE 1 OF THE SAN PEDRO RIVER
DM002	NONE	NONE			GROUNDWATER: CATALOGUED
DV001	39-0000101	33-0012345 36-2000000	1930	36-2000000	SURFACE WATER: SAN PEDRO RIVER
IR001	39-0000100 39-0000102	36-2000000	1930	36-2000000	GROUNDWATER: ZONE 1 OF THE SAN PEDRO RIVER
IR002	39-0000102	36-2000000	1930	36-2000000	SURFACE WATER: SAN PEDRO RIVER GROUNDWATER: ZONE 2
IR003	39-0000101	33-0012345 36-2000000	1950	33-0012345	SURFACE WATER: SAN PEDRO RIVER
IR090	39-0000101	33-0012345	1955	1955 AERIAL PHOTO	SURFACE WATER: SAN PEDRO RIVER
OT001	39-0000102	NONE	1986	1986 AERIAL PHOTO	GROUNDWATER: ZONE 1 OF THE SAN PEDRO RIVER
SP001	39-0000104	38-0000900	1945	38-0000900	SURFACE WATER: BABOCOMARI RIVER
SR001	39-0000101	33-0012345 36-2000000	1935	1935 AERIAL PHOTO	SURFACE WATER: SAN PEDRO RIVER GROUNDWATER: ZONE 2
NONE	39-0000103	36-1000000			

**EXAMPLE WATERSHED FILE REPORT**  
(continued)

**QUANTITIES OF USE**

<u>PWR #</u>	<u>QUANTIFICATION TYPE</u>	<u>ACRES</u>	<u>CROP TYPE</u>	<u>EFF</u>	<u>WATER DUTY</u>	<u>ESTIMATED VOLUME</u>	<u>REMARKS</u>
DM001							SEE VOLUME 1 - GENERAL ASSESSMENT
DM002							SEE VOLUME 1 - GENERAL ASSESSMENT
IR001	MAX. OBSERVED	130.0	ALFALFA	35%	4.6 AF/AC	598.0 AFA	
	REGIONAL	135.0	AVE. CROP		4.0 AF/AC	540.0 AFA	
	MAX. POTENTIAL	135.0	ALFALFA	35%	4.6 AF/AC	621.0 AFA	
IR002	MAX. OBSERVED	32.1	ALFALFA	35%	3.0 AF/AC	96.3 AFA	DEFICIT IRRIGATION
	REGIONAL	32.1	AVE. CROP		4.0 AF/AC	128.4 AFA	
	MAX. POTENTIAL	32.1	ALFALFA	35%	4.6 AF/AC	147.7 AFA	
IR003	CERTIFICATE	180.0	PERM. PSTR.		6.0 AF/AC	1080.0 AFA	
	MAX. OBSERVED	170.2	PERM. PSTR.	30%	4.9 AF/AC	834.0 AFA	
	REGIONAL	175.0	AVE. CROP		4.0 AF/AC	700.0 AFA	
	MAX. POTENTIAL	175.0	PERM. PSTR.	30%	4.9 AF/AC	857.5 AFA	
IR090	REGIONAL	6.0	AVE. CROP				DISCONTINUED IRRG.
OT001	REGIONAL	1.9	AVE. CROP		4.0 AF/AC	7.6 AFA	
SPO01	MAX. AREA/CAP	1.5			3.5 AF		
SR001	MAX. AREA/CAP	6.0			18.0 AF		

<u>DIVERSION PWR NOS.</u>	<u>DIVERSION CAPACITY</u>	<u>MAXIMUM DEMAND RATE</u>	<u>DECREED RATE</u>	<u>CERTIFICATED RATE</u>	<u>ESTIMATED VOLUME DIVERTED</u>
DV001	40.0 CFS	35.0 CFS		45.0 CFS	10,000.0 AFA

**E X P L A N A T I O N**

**FILINGS AND DECREES**

FILING 39-103 - CLAIMS STOCKWATERING USE FROM JONES TANK. NO STOCKPOND WAS FOUND AT THE CLAIMED LOCATION. A UNIFORM QUESTIONNAIRE WAS RECEIVED WHICH PROVIDED NO ADDITIONAL INFORMATION.

FILING 36-1000000 - NO WATER USES OR LOCATIONS WERE CLAIMED. NO WATER USES WERE MATCHED TO THIS FILING.

**DIVERSIONS**

- D1 - DIVERSION FROM THE SAN PEDRO RIVER INTO THE MANY FARMS IRRIGATION DISTRICT DITCH.
- W1 - WELL PROVIDES WATER FOR IRRIGATION AND DOMESTIC WATER USES.
- W2 - WELL PROVIDES WATER FOR IRRIGATION USES.
- W3 - UNUSED WELL.

**EXAMPLE WATERSHED FILE REPORT**  
**(continued)**

**USES AND RESERVOIRS**

DM1 - DOMESTIC USE.

DV1 - DIVERSION FROM THE SAN PEDRO RIVER INTO THE MANY FARMS IRRIGATION DISTRICT DITCH.

IR1 AND IR2 - IRRIGATED ALFALFA.

IR3 - IRRIGATED PASTURE.

IR90 - DISCONTINUED IRRIGATION: D.W.R. HAS DETERMINED THAT NO IRRIGATION HAS OCCURRED ON THIS PROPERTY IN THE LAST FIVE YEARS, BUT THERE HAS BEEN IRRIGATION WITHIN THE PAST TEN YEARS BASED UPON A REVIEW OF HISTORICAL AERIAL PHOTOGRAPHY AND FIELD INVESTIGATIONS.

OT1 - IRRIGATION TOTALING LESS THAN TWO ACRES ASSOCIATED WITH A DOMESTIC USE.

SP1 - SMITH TANK STOCKPOND.

SR1 - SMALL RESERVOIR, SUPPLIED BY DIVERSION D1 AND WELL W2, IS USED FOR IRRIGATION, RECREATION, STOCKWATERING, AND WILDLIFE PURPOSES.

**Volume 7: Zone 2 Well Reports (formerly Wells Subject to Federal Claims)**

This volume contains a listing of those wells pumping groundwater that DWR has determined may be subject to claims made by federal reservations within the Gila River system. The claims are based on federal reserved rights previously described in Chapter 1. These wells have the potential to diminish the surface water and groundwater supplies at, on, or near federal reservations that could be used to satisfy their reserved rights claims. The information contained in the reports for these wells is as follows:

- (1) ownership information
  - (a) the land owner of record
  - (b) the report number
- (2) Zone 2 groundwater wells information
  - (a) the well number
  - (b) the well name if applicable
  - (c) the well location by legal description

- (d) the water uses served by the well
- (e) the remarks section
- (3) water use information
  - (a) the water uses and numbers supplied by the well
  - (b) the water use location by legal description
  - (c) apparent dates of first use and data source
  - (d) the apparent annual volume used
  - (e) the acres irrigated (for irrigation uses only)
- (4) the statements of claimant that apply to the well(s) and/or water use(s)
- (5) the explanation section

The Introduction Section to Volume 7 provides an in-depth discussion of each of the data elements of the report outlined above. An example of a Zone 2 Well report is shown below.

#### EXAMPLE ZONE 2 WELL REPORT

<u>LAND OWNER</u>	<u>ZONE 2 WELL REPORT NUMBER</u>
SMITH, J.E.	111-23-ADD-006

<u>WELLS</u>	<u>WELL NAMES</u>	<u>WELL LOCATION</u>			<u>WATER USES SERVED</u>	<u>REMARKS</u>
		<u>SECTION</u>	<u>TWNP</u>	<u>RNGE</u>		
W02	UNNAMED	NWSESE31	230S	210E	IR002,SR001	

<u>WATER USE NUMBERS</u>	<u>WATER USE LOCATION</u>			<u>**APPARENT FIRST USE**</u>		<u>APPAR. ANNUAL VOLUME USED</u>	<u>ACRES IRRIGATED</u>
	<u>SECTION</u>	<u>TWNP</u>	<u>RNGE</u>	<u>DATE</u>	<u>BASIS FOR DATE</u>		
IR002	NENE31	230S	210E	1930	FILING 36-2000000	128.4 AFA	32.1
SR001	SESESE31	230S	210E	1935	1935 AERIAL PHOTO	18.0 AFA	1.9

<u>APPLICABLE STATEMENTS OF CLAIMANT</u>	<u>APPLIES TO: WELLS</u>	<u>APPLIES TO: WATER USES</u>
39-0000101		SR001
39-0000102	W02	IR002



## EXAMPLE ZONE 2 WELL REPORT (continued)

### EXPLANATION

THE APPARENT ANNUAL VOLUME FOR IR002 IS PARTIALLY SUPPLIED BY SURFACE WATER.

THE APPARENT ANNUAL VOLUME FOR SR001 IS PARTIALLY SUPPLIED BY SURFACE WATER.

W2 - WELL PROVIDES WATER FOR IRRIGATION USES.

IR2 - IRRIGATED ALFALFA.

SR1 - SMALL RESERVOIR IS USED FOR IRRIGATION, RECREATION, STOCKWATERING, AND WILDLIFE PURPOSES.

### **Volume 8: Catalogued Wells**

This volume contains a catalogue of those wells which may not be subject to the adjudication or to federal claims as determined by DWR. This determination is based on the well location and the estimated quantity of water use. The wells listed in this report are located outside Zone 1 and serve primarily domestic or stock wells or irrigation uses of less than two acres in size. The information contained in this report is outlined below.

- (1) the catalogued well number
- (2) the well owner's name
- (3) the well location by legal descriptions
- (4) the claimed date of first beneficial use
- (5) the claimed quantity
- (6) the data source for the well information such as: a watershed file report, state well registration, or a statement of claimant

The Introduction Section to Volume 8 provides an in-depth discussion of each of the data elements of the Catalogued Wells listing outlined above. An example of the Catalogued Wells is shown on the next page.

### EXAMPLE CATALOGUED WELLS

CATALOGUED		WELL LOCATION		CLAIMED	CLAIMED			
<u>WELL NUMBER</u>	<u>WELL OWNERS NAME</u>	<u>SECTION</u>	<u>TWNP</u>	<u>RNGE</u>	<u>DATE</u>	<u>QUANTITY</u>	<u>DATA SOURCE</u>	<u>TYPE</u>
1	ADAMS, B.B.	SESESE36	230S	210E	1962	9.00 GPM	55-1000000	DOMESTIC WELL
2	BAKER, C.C.	NENENE01	230S	210E	1983		55-2000000	DOM/STK WELL
3	CHARLES, D.D.	NWNWNW01	230S	210E	1956		55-3000000	STOCK WELL
4	JOHNSON, E.E.	SWSWSW36	230S	210E	1970	1.00 AFA	111-23-AAA-100	AI FILING 39-0000106
5	SMITH, J.E.	SESESE36	230S	210E			111-23-ADD-006	AI DIVERSION W03
6	SMITH, J.E.	SESESE30	230S	210E			111-23-ADD-006	AI PLACE OF USE DM002

### **Volume 9: Water Use Maps**

This volume contains region and subregion maps that depict water uses reported in the watershed file reports in Volumes 3 through 7 with the exception of domestic and other small uses which are not mapped. The scale of these maps varies from one inch equals 5,280 feet for region maps to as great as one inch equals 330 feet for subregion maps. The information included on these maps is discussed in Volume 9. A map index is also provided.



## **APPENDIX B**

# **Appendix B – AquiferWin32© Analysis Example**

## **INDEX WELL 6: 111-23-DDA-016-W1**

=====

WinFlow  
Analytical Model of 2D Ground-Water Flow

Developed by

James O. Rumbaugh, III

Douglas B. Rumbaugh

(c) 1995-2011 Environmental Simulations, Inc.

=====

Date: 1/24/2017  
Time: 10:57:06.00

Input File: INDEX6\_111-23-DDA-016-W1  
Map File :



=====

## Model Entities

Number of Linesinks Defined by Infiltration Rate = 0

Number of Linesinks Defined by Head = 0

Number of Ponds = 0

Number of Wells = 9

### Well #1

Center of Well -- x: -7227.979980 y: 0.000000  
Radius = 0.500000 ft  
Pumping Rate = 11.000000 gal/min  
Head at Well Radius = 4237.725586 ft

### Well #2

Center of Well -- x: 123217.296875 y: 0.000000  
Radius = 0.500000 ft  
Pumping Rate = 11.000000 gal/min  
Head at Well Radius = 4237.425293 ft

### Well #3

Center of Well -- x: 57994.660156 y: 0.000000  
Radius = 0.500000 ft  
Pumping Rate = -11.000000 gal/min  
Head at Well Radius = 4240.100098 ft

### Well #4

Center of Well -- x: -123217.296875 y: 0.000000  
Radius = 0.500000 ft  
Pumping Rate = -11.000000 gal/min  
Head at Well Radius = 4240.263184 ft

### Well #5

Center of Well -- x: 7227.979980 y: 0.000000  
Radius = 0.500000 ft  
Pumping Rate = -11.000000 gal/min  
Head at Well Radius = 4240.164063 ft

### Well #6

Center of Well -- x: -137673.296875 y: 0.000000  
Radius = 0.500000 ft  
Pumping Rate = 11.000000 gal/min  
Head at Well Radius = 4237.823730 ft

### Well #7

Center of Well -- x: -72450.632813 y: 0.000000  
Radius = 0.500000 ft  
Pumping Rate = -11.000000 gal/min

Head at Well Radius = 4240.228516 ft  
 Well #8  
 Center of Well -- x: -57994.660156 y: 0.000000  
 Radius = 0.500000 ft  
 Pumping Rate = 11.000000 gal/min  
 Head at Well Radius = 4237.766113 ft  
 Well #9  
 Center of Well -- x: 72450.632813 y: 0.000000  
 Radius = 0.500000 ft  
 Pumping Rate = 11.000000 gal/min  
 Head at Well Radius = 4237.621094 ft

Reference Head = 4239.000000 ft Defined at -- x: 0.000000 y:  
 158400.000000

=====

#### Aquifer Properties

.... Steady-State Flow Model ....

Permeability.....= 21.800000 ft/d  
 Porosity.....= 0.400000  
 Elevation of Aquifer Top....= 4239.000000 ft  
 Elevation of Aquifer Bottom.= 4113.000000 ft  
 Uniform Regional Gradient...= 0.000000  
 Angle of Uniform Gradient...= 0.000000  
 Recharge.....= 0.000000 ft/min

=====

#### Contour Matrix

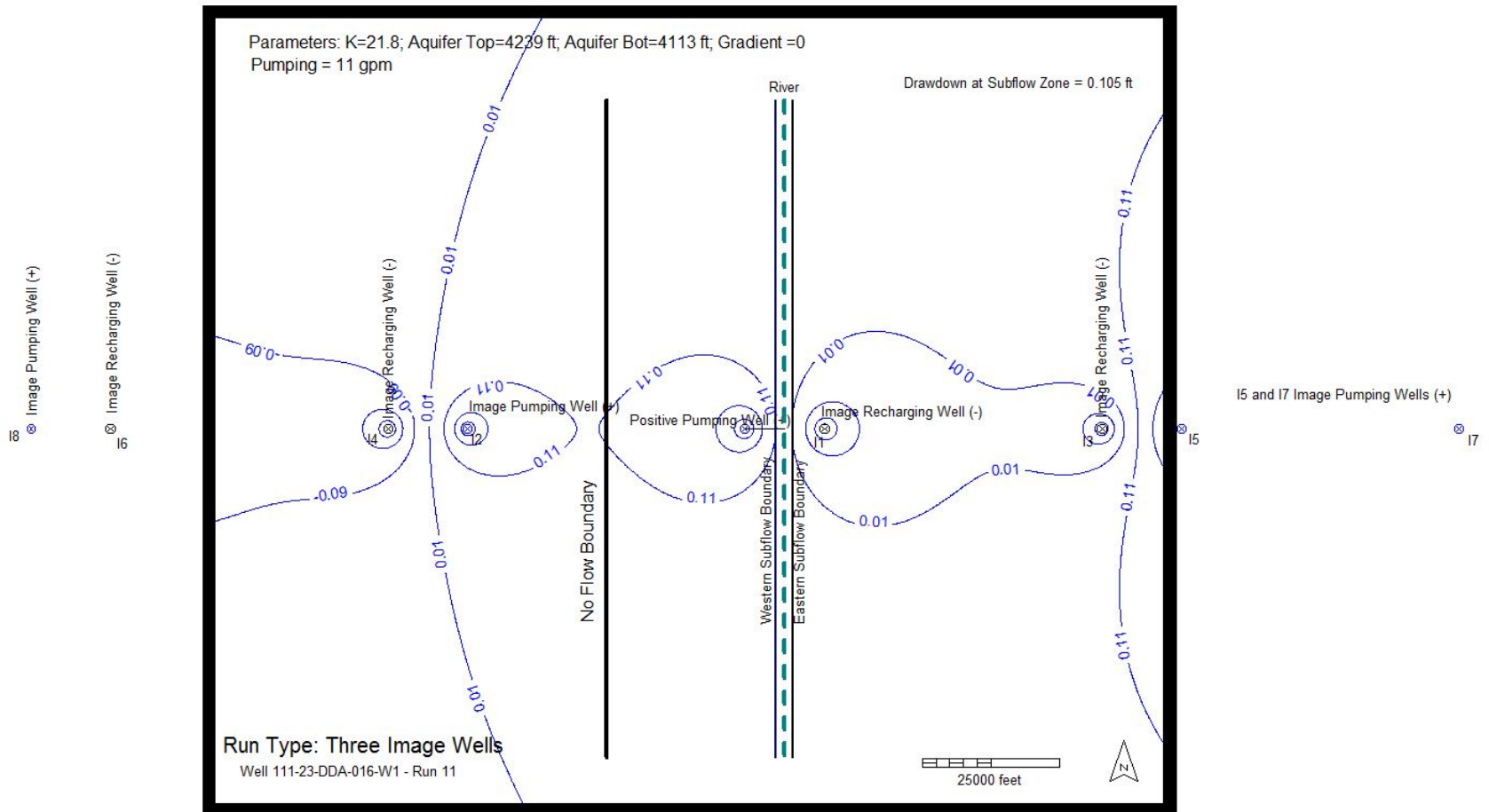
Number of nodes in the X-direction = 1000  
 Number of nodes in the Y-direction = 1000

Minimum X Coordinate = -106304.000000 ft  
 Minimum Y Coordinate = -70675.230000 ft

Maximum X Coordinate = 71441.270000 ft  
 Maximum Y Coordinate = 77241.520000 ft

Minimum Head = -0.668410 ft  
 Maximum Head = 0.734677 ft

## INDEX WELL 6: 111-23-DDA-016-W1



# APPENDIX C

## **APPENDIX C**

### **REQUIREMENTS FOR MODFLOW MODELS SUBMITTED FOR CONE OF DEPRESSION TESTING**

This appendix presents recommended minimum requirements to facilitate the review of numerical groundwater flow models that are to be submitted in support of individual or multiple well Cone of Depression (COD) determinations. The main purpose of the model review is to provide ADWR with data and information to determine if a submitted model is sufficiently reliable to be used for COD evaluations. Fundamental to the review of any numerical model is the submission of a comprehensive model report and accompanying model datasets that provide sufficient information to answer the following basic questions.

1. Is the information used to define inputs to the model accurate and sufficient?
2. Is the model structure appropriate?
3. Is the model parameterization appropriate?
4. Does the model calibration demonstrate reasonable correspondence with historical data?
5. Are the model predictions likely to be sufficiently accurate to support decisions?

Acceptable model reports should include data, information and a discussion of:

- A. The area modeled and time frame(s) modeled.
- B. The model grid (dimensions and orientation)
- C. The conceptual model
  - a. Hydrogeologic Units (HGU)s modeled
  - b. Hydraulic properties of HGU)s
  - c. Boundary conditions
  - d. Conceptual water budget(s)
- D. Numerical model description
  - a. Model code used
  - b. Hydrologic features and processes simulated (with method of simulation described)
  - c. Boundary conditions simulated
  - d. Model data development (as applicable)
    1. Water levels
    2. Aquifer parameters
    3. Pumping
    4. Evapotranspiration
    5. Stream routing (GW/SW interaction)
    6. Natural recharge
    7. Incidental recharge
    8. Other (?)
- E. Model Calibration
  - a. Methods used (manual vs. automated)
  - b. Modification of model inputs
  - c. Calibration results
    1. Steady-State (SS) water budget
    2. Transient (TR) budget (if applicable)
    3. Map of simulated heads [SS and TR (if applicable)]



4. Map of head residuals (summary statistics and map)
5. Hydrographs of simulated vs. observed heads (if applicable)

- F. Sensitivity Analysis
- a. Parameters tested
  - b. Methods and procedures used
  - c. Identification of sensitive parameters
  - d. Summary of sensitivity results

Assuming a comprehensive, properly documented model report is provided along with the accompanying model datasets the potential reliability of the model may be evaluated. However, critical concerns may arise in the model reliability review that potentially include:

1. Model cell discretization. Is the model grid sufficiently fine in the area of the SFZ boundary to accurately simulate the horizontal hydraulic gradient (and SS-drawdown)? For example, is the averaging of simulated drawdown over the area of a SFZ boundary cell a concern that could potentially impact the results of a COD determination?
2. Are the simulated ss-heads (and drawdown) saved in a numeric format that will allow for the calculation of SS-drawdown to a precision of at least 0.1 foot?
3. Does the spatial distribution of model error (head residuals) potentially impact model results? For example, is the model error large in the area where the COD well is located or in area of the SFZ boundary where the largest SS drawdown is simulated?
4. Are there highly sensitive model parameters (particularly hydraulic conductivity) that may unduly influence COD determinations?

If any of these potential concerns are applicable for a particular COD well test ADWR may ask for additional information and modeling to determine their potential impact.

## **Additional Resources on Groundwater Modeling Standards, Calibration and Evaluation**

ASTM Standards on Topics Related to Groundwater Modeling.

<https://webstore.ansi.org/>

Hill, M.C., 1998. Methods and Guidelines for Effective Model Calibration. USGS Water-Resources Investigation Report 98-4005.

<https://water.usgs.gov/software/lists/groundwater>

Reilly, T.W., and Harbaugh A.W., 2004. Guidelines for Evaluating Ground-Water Flow Models. USGS Scientific Investigations Report 2004-5038.

<https://water.usgs.gov/software/lists/groundwater>

Watermark Numerical Computing, 2010. PEST Model-Independent Parameter Estimation User Manual 5<sup>th</sup> Edition.

<http://www.pesthomepage.org>